

EVIDENTIARY HEARING
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Application for Certification for) Docket No.
The Ivanpah Solar Electric) 07-AFC-5
Generating System)
_____)

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

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1 P R O C E E D I N G S

2 1:11 p.m.

3 HEARING OFFICER KRAMER: Okay, we're
4 back on the record for January 13th, continued
5 Ivanpah evidentiary hearings. In the room I think
6 we all know who we are, and the court reporter
7 will let us know if he needs a new face identified
8 when that time comes.

9 Because Mr. Gilon has called in from
10 Israel, it must be rather late, our first order of
11 business will be to allow the parties to ask
12 questions of him under the topic of project
13 description.

14 And I know, Ms. Belenky, that you had
15 some questions. So why don't you get us started.

16 MR. HARRIS: Can I remind Mr. -- Yoel
17 that -- Hi, Yoel, this is Jeff Harris. Are you
18 there?

19 MR. GILON: Yes, I'm here.

20 MR. HARRIS: Okay. Just to let you
21 know, this is a continuation of the hearing that
22 we had in January. So, you've already been sworn
23 previously, and so you don't need to be re-sworn.

24 You're going to be cross-examined now by
25 the intervenors who have some questions that came

1 up in the hearing yesterday that I think you may
2 be aware of.

3 So it's the same format as last time,
4 and wanted to make sure you're aware of that.
5 We're just basically continuing that prior
6 hearing.

7 MR. GILON: That's fine.

8 MS. BELENKY: Good morning. This is
9 Lisa Belenky. How are you?

10 MR. GILON: I'm fine, thanks.

11 MS. BELENKY: Good.

12 CROSS-EXAMINATION

13 BY MS. BELENKY:

14 Q I just had some questions and I tried to
15 ask the people who were here the other day, but
16 they weren't -- I wasn't sure -- it became clear
17 that you are the one with the most knowledge on
18 these questions. So I just wanted to ask you a
19 few quick questions.

20 And these all go to both the question of
21 whether -- how clouds or cloud cover might affect
22 the solar output of the plant. And whether the
23 plant can run up with a certain amount of cloud
24 cover. And also shadowing from the mountains.

25 And I hope that you've seen our exhibit

1 which was called the revised testimony of Curtis
2 Bradley. Did you look at that exhibit?

3 MR. GILON: Yes.

4 MS. BELENKY: Thank --

5 MR. GILON: I've seen that and I've seen
6 those question also about clouds.

7 MS. BELENKY: Okay, great. So this
8 should go very quickly. Did you calculate the
9 amount of time that shadows from the mountains
10 fall on the site when you were looking at the
11 output from the site?

12 MR. GILON: Yes. And let me say in this
13 regard two things. I'll start with what is -- in
14 order not to go (inaudible) even for all of that
15 information, even if we will use all the --
16 shadowing, the shadowing which look bad for
17 project, let us remember that those shadowing
18 happen in the early morning and in the afternoon,
19 and even in the winter, even 3:00 in the afternoon
20 is not (inaudible) the 20 -- 12th of December to
21 the sun.

22 Altogether, out of the 2800 kilowatt
23 hours, square meter of solar energy, it is still a
24 very small percentage.

25 And not only that, but given this small

1 percentage of energy at that time is in the kind
2 of worst efficiency of the solar plant, because
3 the sun's angle is so low there is a lot of
4 shadowing inside the field. So, all together the
5 impact is very small.

6 Our calculation is that this impact is
7 half percent in the energy. And as I say, the --
8 energy is very low. And I'm not trying to say we
9 wish we had no shadowing, but that shadowing
10 impact is very small.

11 I'd like also to remind all of us, which
12 I think is significant, that the first project in
13 Daggett, in fact Solar One and Solar Two, the
14 towers that were done by Sandia, also had
15 mountains and shadowing. And that didn't prevent
16 the big success of SEGS One and SEGS Two, which
17 were the two first projects that were built at the
18 time.

19 In the troughs, for example, the trough
20 system, because of the way it is operated, each
21 trough is shadowing the other trough's sun sensor
22 up to 10 degrees from the right, and in both
23 directions. So up to 10 degree from sunrise and
24 after 10 degree from sunset. It was not possible
25 to track, and so therefore the plant could not

1 upgrading.

2 But this is such a tiny portion of the
3 year. And, in fact, we calculated the project
4 mountain will create shadowing when the sun is
5 less than 10 degrees. And I repeat, that the
6 whole impact of this 10 degrees was evaluated by
7 us to have a half a percent impact on the total
8 solar energy.

9 MS. BELENKY: Thank you, that was very
10 helpful. And then I sort of want to ask the same
11 question about cloud cover. Did you calculate the
12 amount of cloud cover -- well, first of all,
13 there's two questions, I'm sorry.

14 Is there a certain percent of cloud
15 cover or an amount that you can calculate or say
16 that limits the use of the solar plant?

17 MR. GILON: Yes. And I'll go to detail
18 there, even though, if you'll allow it, if you'll
19 allow me, I'd like to do some background in
20 perspective. It has to do also with the -- even
21 with the mountain shadowing, but more
22 significantly on clouds.

23 Before starting let us remember that
24 Ivanpah is in the California high desert, which,
25 if we -- I don't know about any other place in the

1 planet that is so good from solarization. And, in
2 fact, just as an example, Spain -- the best place
3 in Spain is still 30 percent below at Ivanpah, for
4 example. And no surprise, this is something we
5 have to remember, it's no surprise that the rate
6 they are paying for solar there is 45 cents. Now
7 the rates we have is confidential with PG&E. That
8 fuel that is much lower than that.

9 And furthermore, all our target is to
10 get in competition with conventional power plant,
11 and therefore, we, you know, not only me speaking,
12 coming from Israel, in Israel we have no such
13 weather. And, by the way, Israel is also 15 to 20
14 percent below these places.

15 All together, this place has extremely
16 high rotation, meaning it's very very small amount
17 of clouds.

18 Now, specifically to your question, we
19 are measuring radiation, -- normal radiation in
20 the Ivanpah, you know, of course not on the BLM
21 land, but on the very edge, I believe it's about a
22 mile away from Ivanpah One since March 2008. The
23 BLM, at that time, they've analyzed that minute-
24 by-minute over the full year of March 2008 to
25 April 2009. And analyzed by five-minute sections.

1 Now, we're working very hard on that
2 because this is, on one hand, this is very crucial
3 for us. As you can guess, we don't like clouds
4 and we like to understand exactly what type of
5 cloud, what are the variants, how low the level is
6 coming, and what's the frequency it come. And the
7 duration between clouds. We have analyzed all of
8 that.

9 And also on the size from the boiler
10 point of view and from the power plant point of
11 view how they can cost together, how can they work
12 out together. And I would even say that we
13 consider these to be as very equal and
14 (inaudible), and in fact, we have an issue
15 sometimes about it, how we can both -- and work
16 together, and we're even questioning how we can --
17 and project how the clouds are coming, and how all
18 the -- we can prepare for that.

19 And after all of that, I would say that
20 in the percent -- that's what I don't want, I'm
21 trying not to reveal, how should I say, how to
22 tell all the details, but all together out of the
23 3400 hours of the year of operation, there is 700
24 of hours -- to really take hundreds of hour of
25 clouds.

1 But those are the clouds, and when I
2 mentioned before (inaudible), that's less than 10
3 percent. I'm not giving the exact value, but it's
4 less than 10 percent of all the energy. Out of
5 which I would say that more than half, about 5
6 percent of the, we definitely will be able to
7 operate even though there are passing clouds.

8 And for the last 2 percent we're still
9 working very hard on that. Because as I
10 mentioned, we need to get this electrical energy
11 price as low as possible. So we are trying to
12 squeeze every possible solar energy coming in
13 between clouds and so on.

14 And on that we are still working. But
15 just to -- it shows you that we are speaking on
16 probably 2 percent, I would say, 1 or 2 percent of
17 those 3 or 4 percent that we are still looking at
18 value of those clouds. Anyway, will not be
19 exorbitant. And I would say we are working on
20 getting another 2 to 3 percent of those passing
21 clouds, ability to offer it.

22 MS. BELENKY: Thank you. That was very
23 helpful. I just want to make sure I clarify what
24 you had said. So 5 percent of the time that there
25 is cloud cover you can continue to operate as

1 solar only without the gas boilers, is that your
2 testimony?

3 MR. GILON: Okay, before I mentioned --
4 what I was saying that is not -- is good you
5 mention because it's not complete when I say that
6 on the -- out of this 5 percent we can operate
7 still, out of 3 to 5 percent. It's not on time.
8 The time is more than that. If it was just by the
9 time -- the time of the year, I would say it would
10 go up to about 20 percent of the time there is
11 these clouds.

12 But also, as I mentioned in my previous
13 question, I was mentioning that -- or the
14 beginning background I was mentioning that we
15 have 2800 kilowatt hour per meter. This is for
16 the, the majority, I would say, close to 70
17 percent of it is with clear sky. And those 30
18 percent or 20 percent of the time, which in that,
19 is much less cover with clouds, much less
20 radiation, that this why I'm picking on that, that
21 10 percent.

22 And in order to pass those clouds, one
23 of the important element that we have put is the
24 boiler. And (inaudible) it's a boiler, which is
25 not a full-size boiler. I wish we had -- we could

1 talk here a full-size boiler. But this one, which
2 I'm not mentioning.

3 But for the purpose of passing cloud, if
4 the cloud is passing and therefore it can cover
5 all field or most of the field, and it can reduce
6 the radiation, the energy very much. So there, in
7 order to pass those events, and we can -- one of
8 the important elements is this boiler which will
9 allow, because this boiler is about one-sixth of
10 the full-- capacity.

11 And so it will allow working with the
12 boiler -- and therefore we don't need to treat the
13 turbine or restart the boiler, which, if you
14 restart the boiler, it takes some time. So you're
15 losing again the sun when it's coming up.

16 And therefore it's not just directly
17 related, because let's say, if we remember, that
18 five-minute clouds and 20-minute clear sky, then
19 another five-minute cloud, we cannot operate the
20 boiler up and down so quickly. So for those,
21 that's why the forecasting is quite important to
22 know when we are working on that, as well.

23 But for those days, that's why depend on
24 days, in a perfectly kind of days when we operate
25 the boiler only in the morning for the startup,

1 because it can help us get up very quick. And
2 therefore, squeezing again most of the solar.

3 But for those days passing clouds coming
4 in and out, we might all the day, no, you know, we
5 not all the day. We have few minutes that we will
6 go up to four hours of the day that we operate the
7 boiler such that the passing clouds coming in and
8 out will not (inaudible) its own.

9 MS. BELENKY: Thank you. That was very
10 very helpful understanding how the system works
11 and how much the use of the boiler might be.

12 So I just want to make sure I understood
13 that part. You're saying during those times, for
14 example, on a day when there's a few clouds coming
15 by, you might use the boiler. Would it be a lower
16 level? Or just -- is there only one level? I
17 don't know --

18 MR. GILON: No, it is one level. I was
19 mentioning that the level of the boiler is about,
20 I believe, close to 100 -- per hour inflow. The
21 steam of the boiler is not the full load. It's
22 the low pressure thing such as you (inaudible)
23 boiler operate the power plant by itself.

24 And therefore, it's just at low
25 pressure. And at one-sixth, one-over-six, of the

1 total capacity of the boiler. So when we operate
2 this, this will be reducing to this almost lower
3 level, if possible we can pass those clouds
4 without making this -- the turbine out. And also
5 allowing the boiler to come in.

6 MS. BELENKY: Very very helpful. Thank
7 you so much. So I just want to also follow up
8 with that. So the FSA, and I think it's a number
9 that comes from the applicant, provides an
10 estimate of 28 percent capacity for the project,
11 is that correct?

12 MR. GILON: Yes.

13 MS. BELENKY: Yeah. If there was no gas
14 boiler component, do you have an idea what would
15 be the capacity factor for the plant?

16 MR. GILON: Well, -- to make it exactly,
17 it's about 28 percent. We committed ourselves in
18 the PPA with PG&E and Edison to about 28 percent.
19 And just to also understand, to make sure that we
20 (inaudible) capacity factor, the 28 percent or
21 close to 30 percent, meaning is that if you look
22 at the full year production from solar and with --
23 solar, and then the full production divided by the
24 production, kind of theoretical production, would
25 we operate the power plant at full load 8760 hours

1 of the year, the fraction would be 28 to 30
2 percent.

3 And out of which we assume that we will
4 have - we could have 5 percent utilization of the
5 (inaudible) it's about 1000 hour a year. But this
6 is not 1000, it's about numbered. But the 5
7 percent will allow the startup in the morning to
8 get the full startup that we are looking for, and
9 for those passing clouds.

10 MS. BELENKY: Thank you. That's very
11 helpful. So in your view, the 5 percent
12 utilization of the boilers is a reasonable limit.
13 Would you agree with that statement?

14 MR. GILON: Honestly, on my side I wish
15 we could have some more, because, you know, let us
16 remember, it's a first of a kind project. So, in
17 spite of it, we are doing most sophisticated model
18 and so on. I still think that one of the
19 advantages of the boiler is that it's all
20 professional technology and you can trust it.

21 And in our solar everything I'm speaking
22 as if I know it so well, but (inaudible). And,
23 again, related to what you asked me before in the
24 beginning of these questions, this is all assuming
25 the type of (inaudible).

1 Imagine, we were applying for it two
2 years ago before we had the minute-by-minute,
3 almost two years of measurement. And we are very
4 happy that we get it in this way. I can tell you
5 honestly that I was not expecting this type of
6 cloud. On the other hand I did -- I recall, I
7 think three years ago I was saying that we don't
8 deal with clouds. (inaudible) all together is not
9 so much.

10 But I hope you understand, it doesn't
11 contradict. The fact we are (inaudible) the last
12 2 to 3 percent, is not contradicting the fact that
13 we want 5 percent of the (inaudible) to be able to
14 get those percent.

15 MS. BELENKY: Thank you. I just have a
16 couple of other questions about the turbine. And
17 this actually goes to the location more than
18 anything else.

19 In Ivanpah 1 and 2 the tower and the
20 turbine are quite close together, is that correct?

21 MR. GILON: Yes.

22 MS. BELENKY: And then in Ivanpah --
23 yes?

24 MR. GILON: When you say together
25 it's --

1 MS. BELENKY: Near.

2 MR. GILON: -- close to the -- in 1,
3 close to the tower. And 2 close to the tower --

4 MS. BELENKY: Yes, that's what I meant.
5 In Ivanpah 3, the turbine, which I understand is a
6 larger turbine, is near the central tower in
7 Ivanpah 3, is that correct?

8 MR. GILON: That's correct.

9 MS. BELENKY: And so the water, the hot
10 water from the other -- there will be four other
11 towers, has to come over across the field to that
12 turbine area, is that correct?

13 MR. GILON: Let me say -- those five
14 tower in this configuration, that's why it's a
15 different design. In the first two the design
16 (inaudible) one boiler on top of this unit of this
17 one tower. And therefore, we have the (inaudible)
18 are all in the same tower.

19 With the configuration of five tower,
20 the fourth tower, the round, the one that do only
21 steam generation. And the fifth tower, in fact
22 it's a larger size, from energy point of view --
23 there's the height of the tower all the same, but
24 with the boiler on top is different because in
25 this configuration the four towers around are just

1 steam generation. And the last, the fifth tower,
2 is the center, very close to the turbine. You'll
3 understand why, is doing superheating and
4 reheating. And why it is so because transferring
5 superheated steam would be very costly. And the
6 (inaudible) it would be very very costly.

7 And therefore, those five which just
8 transfer saturated steam from the fourth tower to
9 the fifth tower; then going up the tower, and down
10 to the turbine which, in this case, actually
11 adjacent to the fifth tower. Then the passing is
12 not so long.

13 And similarly, the (inaudible) which
14 will go from the turbine back to this fifth tower
15 and get (inaudible) and back to the turbine will
16 be all close to this tower.

17 MS. BELENKY: Thank you. I just want to
18 ask a little bit of clarification on that. So the
19 four towers that are in three, the outer towers,
20 they're heating up water into steam. And then in
21 the pipe that goes towards the fifth tower, the
22 center, in that pipe is steam already. It's
23 already --

24 MR. GILON: Right. Saturated steam.
25 Saturated steam, you're right. Hundred percent

1 saturated steam.

2 MS. BELENKY: And those pipes are -- I
3 mean I looked at the design; it looked like
4 they're about a mile long, is that correct?

5 MR. GILON: I believe that -- I thinks
6 that this a mile away all around from the fifth
7 tower. So in between, you know, I don't have it
8 in front of me, but I would guess less than half a
9 mile, but not (inaudible).

10 MS. BELENKY: And is there a heat loss
11 during that transfer?

12 MR. GILON: Not so much because, you
13 know, those pipes are insulated such that it's not
14 so much a heat losses. More important is that
15 there is a pressure losses. And therefore, if the
16 saturated steam, and when it gets with low
17 pressure, that's because of the thermodynamic of
18 heat. Therefore the steam, you know, I was saying
19 such 100 percent saturated steam. At the end of
20 the line it might not be. So there might be, it
21 probably won't be exactly 100 percent, but it goes
22 to the fifth tower. So, instead of just
23 (inaudible) it would still generate or still to
24 some energy (inaudible).

25 So, it's not -- so, you're quite --

1 there is a loss of (inaudible) from the value of
2 energy, but not so much because of the losses, but
3 more because of the pressure.

4 MS. BELENKY: So, and this is my last
5 question. I just want to clarify, the solar --
6 the Ivanpah 1 and 2 design where there's a circle
7 around each separate tower, that has been done
8 before on a smaller scale, I believe, like 6
9 megawatts, is that correct?

10 MR. GILON: Right, the pilot in Israel.

11 MS. BELENKY: But the design for solar
12 -- Ivanpah 3 with the multiple towers and the sort
13 of semi-concentric rings, I'm not sure how to term
14 it, that design has not been put in place before
15 and operational, is that correct?

16 MR. GILON: No, I wouldn't say so. And
17 let me state, in a sense we -- a pilot is a pilot.
18 And the type of this, if it is -- there's the 300
19 megawatts of what is for the first tower and the
20 second tower. So, it's, you see, is part of 300.
21 It's just one out of 50, and it's getting down.

22 Therefore -- on the other hand, that's
23 why there was a lot of consideration how you do
24 it. And what we did is you take a slice of the
25 pie, if you look at it this way, for a slice of

1 the pie such that we will get -- to achieve a lot,
2 on one hand, you need to use that to be in the
3 right size. So you use the one-to-one heliostat.

4 An example, it's not squeezing the tower
5 by 50, and then everything is small. So that
6 this, children playing kind of -- it won't work.
7 So on one hand we have the size, the right one,
8 the exact one-to-one.

9 The height of the tower, of the silo, is
10 about 80 meter instead of, you know, 75 meter, and
11 so almost 130, 140 meters. But very close; it's
12 good enough to have the same proportion.

13 Now come the main element, the boiler
14 itself. On top of the tower, impossible to put on
15 top of the tower and a full boiler. If you put
16 the full boiler size, it cost a fortune. But
17 also, the slice on top of it will not be the right
18 one.

19 So therefore, even in the boiler we take
20 the slice, and we take two pieces of the slice.
21 One slice, that's why there on the -- there is two
22 receiver. There is a 5 meter by 5 meter receiver,
23 and a 4 meter by 4 meter superheater receiver.
24 And we got a lot of spillage because of that, just
25 a small portion of -- again, the slice of the

1 boiler up there.

2 But then we get the right slice. And we
3 simulate, in fact that's why we thought the right
4 pressure and the right temperature you get -- we
5 simulate the exactly what's going to happen in
6 both generation paths, which is true for the tower
7 of one and two.

8 And also, on the superheater part, which
9 is, again, part of the boiler of one and two. And
10 now having to -- this slice of the boiler, the
11 steam generator path will be relevant to the four
12 towers all around the Ivanpah 3, which is those
13 four towers.

14 And it will be true also for the fifth
15 tower, the superheated part. So therefore, the
16 same pilot is giving out the simulation for all
17 cases.

18 The only thing I -- that might be
19 confusing when you look at the fifth and the --
20 five tower, where there you see, and it's complex,
21 but practically, you know, every heliostat at
22 every moment when it's not moving between towers,
23 every heliostat in every moment of this large
24 plant will be directed to one tower.

25 So from when you are standing on top of

1 one of those five towers, (inaudible) that is
2 directed to you. And therefore, -- the right
3 simulation of this. I hope you can -- what I say,
4 I don't --

5 MS. BELENKY: I think so, I think you've
6 said that there's a pilot plan that simulates the
7 way that Ivanpah 3 would work using a slice of the
8 pie.

9 MR. GILON: Right.

10 MS. BELENKY: Yes. Thank you very much.
11 It's been very helpful.

12 HEARING OFFICER KRAMER: Thank you. Any
13 other questions? Ms. Cunningham?

14 CROSS-EXAMINATION

15 BY MS. CUNNINGHAM:

16 Q I just have one question. Is there a
17 time when a cloud would move over part of the
18 field and hang there for a certain amount of time
19 over part of the heliostat field where you'd have
20 to put the heliostats into a safety position
21 because there might be damage to the receiver
22 getting too hot on one side?

23 MR. GILON: Well, if -- what you just
24 exactly described, and we have experienced quite a
25 lot in the pilots in the last test we did. And

1 that is true, the clouds are not static, they
2 always passing. But there will be a heliostat and
3 therefore it's quite a challenge, which by control
4 we are controlling of what you do with the
5 heliostats.

6 Now, it's the (inaudible). For the
7 steam generation, those are no problem. You can
8 have the heliostat sending or direct its path when
9 the cloud is passing the heliostat will stop being
10 as active, and therefore will not radiate back to
11 the steam generation. When the clouds are coming
12 out, then immediately it can be working on the
13 generator. And then -- a simple way, water in the
14 steam generator it's full -- with the drum.
15 That's this water are circulated in it.

16 So, if there is more (inaudible) it will
17 generate more steam, steam that's no problem. The
18 superheater is more dramatic because on the
19 superheater it's steam, so it's a gas passing
20 there, and therefore if there is a lot of -- it
21 will superheat to a higher temperature and lower
22 temperature.

23 Now following, if just part of the field
24 is covered with clouds, you still have energy.
25 And therefore we need to control it in a

1 sophisticated way. And therefore you can work it
2 all over.

3 When the clouds are covering the full
4 field, then all the heliostats, all the desired
5 heliostats are still pointing up or directing into
6 the position where after the cloud passes it will
7 go to the steam generation. But on superheating
8 standby. It's not going to a safe position. Safe
9 position, if you recall, is for wind when they are
10 facing up and it will take a long time to go
11 there.

12 But the standby position is outside the
13 tower about a few, I would say, 10, 20, 30 meter
14 away. But in a second you can go out and back in.

15 MS. CUNNINGHAM: Okay, thank you.

16 HEARING OFFICER KRAMER: Further
17 questions? Seeing none, Mr. Harris?

18 MR. HARRIS: No, I have none, thank you.

19 HEARING OFFICER KRAMER: Okay, thank
20 you, Mr. Gilon.

21 MR. GILON: Okay, if you need I'm at
22 home, so you can call me. Hopefully nothing after
23 two hours from now.

24 HEARING OFFICER KRAMER: Okay, well,
25 have a good evening. And I hope we make it to

1 sleep before you do, our time.

2 (Laughter.)

3 MR. GILON: Very good. Thanks.

4 MR. HARRIS: Thanks, Yoel.

5 HEARING OFFICER KRAMER: We didn't take
6 roll earlier. We know who's in the room. Is
7 there anyone else on the telephone?

8 MR. OKTAY: This is Sam Oktay with the
9 Mojave Desert AQMD.

10 HEARING OFFICER KRAMER: Sam, could you
11 spell your last name?

12 MR. OKTAY: I'm on the phone.

13 HEARING OFFICER KRAMER: Sam, could you
14 spell your last name?

15 MR. OKTAY: O-k-t-a-y.

16 HEARING OFFICER KRAMER: And that was
17 the Mojave AQMD?

18 MR. OKTAY: Yes, Mojave Desert AQMD.

19 MR. SULLIVAN: This is Sid Sullivan with
20 the Sierra Club.

21 HEARING OFFICER KRAMER: Thank you, Sid.
22 Mr. Oktay, you need to mute your phone because
23 you've got some background noise, it sounds like,
24 in your area. If you have a button on your phone
25 you can use that. Otherwise, the command star 6

1 will --

2 MR. OKTAY: I'll mute it at this time.

3 I was just announcing that I was on the phone.

4 HEARING OFFICER KRAMER: Okay, great.

5 Sounds like you've got it covered then.

6 MR. OKTAY: All right, thank you.

7 HEARING OFFICER KRAMER: Any the other
8 warning, since you're a new player here, is please
9 don't put us on hold because even though you don't
10 know it, your system may start playing music to
11 us, and that would be disruptive.

12 MR. OKTAY: Okay, I got that, thanks.

13 MR. BRIZZEE: Bart Brizzee from the
14 County of San Bernardino.

15 HEARING OFFICER KRAMER: Good afternoon.

16 MR. BRIZZEE: Good afternoon.

17 HEARING OFFICER KRAMER: Anyone else?

18 DR. WALTERS: Will Walters from Aspen is
19 on the line.

20 HEARING OFFICER KRAMER: You will be
21 testifying about air quality?

22 DR. WALTERS: Yes, and greenhouse gases.

23 HEARING OFFICER KRAMER: Okay. Anyone
24 else on the telephone? Okay, thank you.

25 We ended biological resources, more or

1 less, yesterday. The one thing I don't think we
2 did was gave an exhibit number to the map that Mr.
3 Harris is eventually going to produce. Let me
4 find my list.

5 MR. HARRIS: John, do you know the next
6 number in order?

7 MR. CARRIER: I think it's 87.

8 HEARING OFFICER KRAMER: Okay, so that
9 will be exhibit 87. Let me tell you that I have a
10 revised copy of the exhibit list that we've
11 updated. And I'll pass that out during a break
12 that will come in half an hour or so.

13 And on that list, for some of the
14 parties we do not have paper, physical copies, of
15 some of your exhibits. And so if you see an
16 exhibit number that's highlighted in yellow, that
17 means we don't have it.

18 So I'd like to -- I don't want to deal
19 with this during the time on the record,
20 necessarily. But I will need to speak to --
21 certainly to those of you that have some
22 highlighted, in other words missing, exhibits
23 about rectifying that.

24 And then I also need each of the parties
25 to go through this list and make sure that we

1 haven't inadvertently left something off. There
2 were at least one or two cases where the actual
3 testimony, rather than the identified exhibits
4 from a party aren't on here yet. And I want to
5 make sure I get those corrections so we can work
6 hopefully from a near-final list tomorrow when
7 we're dealing with the cleanup on the introduction
8 of exhibits.

9 But rather than disrupt things now, I'll
10 pass that out during the break. And that break,
11 again, will be for the purpose of attending the
12 farewell reception for Commissioner Rosenfeld. We
13 will not stay, as I understand it, for the whole
14 event. But the two Committee Members have a role
15 in that event, so they will be there for at least
16 that portion.

17 Our next topic for today -- well, let me
18 ask. Maybe we can find something that we can do
19 in about 30 minutes. That would be about perfect
20 for where we are.

21 Air quality, I would suggest, is
22 probably not that topic. Traffic and
23 transportation, worker safety and fire protection,
24 cultural resources or land use.

25 Who has questions about traffic by a

1 show of hands. None, I guess? Okay.

2 MR. RATLIFF: We did that issue already.

3 HEARING OFFICER KRAMER: Oh, that's
4 right. There was the condition -- well, there was
5 the condition change proposal. So we need only
6 discuss that. Let's put that off.

7 Worker safety and fire protection? Any
8 questions there from any party?

9 MR. KESSLER: Mr. Kramer, we filed a
10 revised condition trans-4 this morning which
11 reflects the agreement between applicant and
12 ourselves. So unless another party has interest
13 in that, or the Committee, we might be closed on
14 that issue.

15 HEARING OFFICER KRAMER: Right, and I
16 believe you just distributed it right before the
17 meeting?

18 MR. KESSLER: Yes.

19 HEARING OFFICER KRAMER: So it might be
20 good to give them a little bit of time to just
21 look that over and see if they have any concerns.

22 I didn't see any hands on worker safety/
23 fire protection.

24 MR. RATLIFF: I think the only three
25 parties, if I'm not mistaken, who had indicated

1 that they had an interest in traffic and
2 transportation were CURE, the applicant, and, of
3 course, the staff.

4 HEARING OFFICER KRAMER: Well, I'll just
5 give them a chance to react to that.

6 Cultural resources, any questions? Dr.
7 Connor?

8 DR. CONNOR: Yeah, I'll have a few.
9 They're pretty brief questions.

10 HEARING OFFICER KRAMER: Okay. Land
11 use. Okay, who has questions in the area of land
12 use?

13 Okay, would you estimate how long that
14 would take?

15 MS. ANDERSON: I have one question.

16 MS. BELENKY: Yeah. Just a few, maybe
17 -- it's hard to say, 15 minutes or something.
18 Probably less.

19 HEARING OFFICER KRAMER: Okay, --

20 MS. BELENKY: I did want to go back to
21 fire. I'm sorry. On the fire I think we talked
22 about this a little at the prehearing conference.
23 We do have issues with fire, but it's the risk of
24 fire and the effects offsite to wildlands. So, we
25 probably won't ask -- we may ask a couple of

1 questions when that is discussed. But we don't
2 have anything prepared ahead of time on that
3 question.

4 HEARING OFFICER KRAMER: So you would
5 not be offering testimony, just cross-examining?

6 MS. BELENKY: Well, we offered testimony
7 on fire in our testimony in the context of
8 wildlands.

9 HEARING OFFICER KRAMER: Okay.

10 MR. HARRIS: Is that in your bio
11 testimony?

12 MS. BELENKY: Yeah, it's in the
13 testimony.

14 MR. RATLIFF: That was yesterday.

15 MR. HARRIS: Yeah, but -- yeah, I just
16 want to make sure we're not talking past each
17 other here, because I think worker safety and fire
18 protection is like the facility, itself, right,
19 the suppression systems, that kind of stuff.

20 MS. BELENKY: Yeah, and I'm just saying
21 there may be some little bit of spillover where
22 we'd want to ask a question, that's all.

23 MR. HARRIS: Your testimony, I think,
24 came in yesterday, right. So, -- Mr. De Young is
25 available to answer questions, but again, it may

1 be limited -- it won't be about biological issues
2 related to fire, as long as we're clear on that.
3 It'll be about the facility, itself.

4 HEARING OFFICER KRAMER: The plant
5 catching fire and spreading.

6 MR. HARRIS: Talk about the flammability
7 of mirrors, yes.

8 HEARING OFFICER KRAMER: Okay. Staff,
9 is your worker safety and fire protection witness
10 available? Ms. Belenky, we're going to put you on
11 the spot then. If you have questions, you ready
12 to ask them?

13 MS. BELENKY: As I said, we might -- if
14 there was going to be an item that might raise
15 questions. I don't have any specific questions
16 about it.

17 HEARING OFFICER KRAMER: Well, --

18 MS. BELENKY: We didn't --

19 HEARING OFFICER KRAMER: -- okay, then
20 I'm --

21 MS. BELENKY: -- ask for this item to be
22 heard.

23 HEARING OFFICER KRAMER: -- I guess I'm
24 going to take that as a no, because I don't
25 believe staff is intending on presenting any

1 testimony just to see if that will provoke
2 questions from you.

3 (Laughter.)

4 MS. BELENKY: Well, I think we did put
5 in our testimony yesterday that we have concerns
6 that there hasn't been enough evaluation of the
7 risk of fire leaving the site and spreading to
8 wildlands. And that that isn't sufficient. I
9 don't have any more say about that, so --

10 HEARING OFFICER KRAMER: Okay, well,
11 then let me ask --

12 MS. BELENKY: -- if nobody else does,
13 either, we can just move on.

14 HEARING OFFICER KRAMER: -- let me ask
15 the staff and the applicant, are you intending to
16 present any affirmative rebuttal evidence to
17 respond to the intervenor's testimony?

18 MR. RATLIFF: We didn't file any. I
19 don't know that we have anything further to say on
20 it.

21 MR. HARRIS: I'd move my documents into
22 evidence and that'd be it in that section for us.

23 HEARING OFFICER KRAMER: Okay, why don't
24 we do that, then. Could you identify your
25 documents, Mr. Harris?

1 MR. HARRIS: I knew you were going to
2 ask that. Hold on a second. This is why I
3 usually like to have Mr. Carrier standing right
4 next to me.

5 (Pause.)

6 MR. HARRIS: They're identified in our
7 prefiled testimony in section 1C, as in Charlie.

8 MR. RATLIFF: We could call our cultural
9 witness. That might fit into the period that we
10 have right now, looking for something that's open-
11 ended.

12 MR. HARRIS: I've got it, yeah. And
13 there was no rebuttal testimony on that issue.
14 I'm sorry, worker safety is identified as exhibits
15 1, exhibit 57 and exhibit 40 from our prefiled
16 testimony.

17 HEARING OFFICER KRAMER: You said 4-0?

18 MR. HARRIS: 1, 5-7, and 4-0. Yes, just
19 the three items.

20 HEARING OFFICER KRAMER: Okay, any
21 objection to the receipt of those exhibits into
22 evidence? Hearing none, they are received.

23 Staff?

24 MR. RATLIFF: Staff exhibit is the FSA.
25 I believe that's exhibit 300.

1 MR. HARRIS: Did you put the PSA in yet?
2 Were you planning to do that?

3 HEARING OFFICER KRAMER: That's number
4 309. Let me give Mr. Ratliff a stack to pass them
5 out. You might as well start making your notes on
6 the new version.

7 MR. KESSLER: Mr. Kramer, we've called
8 Beverly Bastian, our cultural backup person, down
9 in case you want to move to cultural or put that
10 in now.

11 But also we wanted to suggest that maybe
12 we could get the FDOC statement from Mr. Oktay
13 since he's on the phone. And then maybe leave, if
14 we have more under air quality and thereafter, we
15 could do that after the break. But we could maybe
16 get Mr. Oktay cut free.

17 HEARING OFFICER KRAMER: That's a good
18 suggestion. Thank you.

19 So, Mr. Ratliff, if you have any
20 particular exhibits we need to move in at this
21 time regarding worker safety/fire protection?

22 MR. RATLIFF: I believe the FSA is
23 already in evidence.

24 HEARING OFFICER KRAMER: That's correct.

25 MR. RATLIFF: So, no.

1 HEARING OFFICER KRAMER: Okay. Do any
2 of the intervenors have any documents to introduce
3 regarding this topic?

4 MR. SUBA: Cultural?

5 HEARING OFFICER KRAMER: Worker safety/
6 fire protection.

7 MS. BELENKY: To the extent that our
8 previously filed testimony of Ileene Anderson and
9 the rebuttal testimony are relevant to this topic,
10 we will move them into evidence. For this topic,
11 as well. And we haven't yet assigned a number. I
12 will do that later today, thank you.

13 HEARING OFFICER KRAMER: It's not one of
14 the delineated exhibits? So we missed both your
15 opening, and then your -- no, they are now on this
16 new list.

17 MS. BELENKY: Oh, okay, oh, I see.

18 HEARING OFFICER KRAMER: Your rebuttal
19 testimony is 938.

20 MS. BELENKY: I see.

21 HEARING OFFICER KRAMER: And your
22 opening testimony is 939.

23 MS. BELENKY: Right.

24 HEARING OFFICER KRAMER: So any
25 objection to receiving those into evidence?

1 Seeing none, those are received.

2 Any other party?

3 MR. HARRIS: Mr. Kramer, I was supposed
4 to provide you with a list of exhibits that we
5 wanted to have considered as excluded at some
6 point. But we can do that at the end of the day.
7 I won't ask for a ruling today, as I'd like to
8 move things along. But I do want to put that on
9 your radar again.

10 HEARING OFFICER KRAMER: Okay,
11 certainly. Let's distribute that before we close
12 this evening.

13 Although Dr. Connor is not going to be
14 with us tomorrow in person; he'll be on the
15 telephone. So it might be more expeditious for us
16 to have the discussion with him this evening with
17 Mr. Connor. Is your list ready?

18 MR. HARRIS: My list is ready, but it
19 actually doesn't affect Dr. Connor.

20 HEARING OFFICER KRAMER: Okay, well,
21 then never mind.

22 DR. CONNOR: I can do it on the
23 telephone.

24 HEARING OFFICER KRAMER: Okay, thank
25 you. Then are we going to have our cultural

1 witness available in a moment?

2 MR. KESSLER: She's on her way down;
3 she'll be here any minute.

4 HEARING OFFICER KRAMER: Okay. Worker
5 safety. Air quality. I don't know if everyone
6 heard that Mr. Kessler suggested that we could
7 take the testimony of our witness from the Mojave
8 Air District about the final determination of
9 compliance. And perhaps he could be released.

10 So, Mr. Oktay, are you there?

11 MR. OKTAY: This is Sam Oktay. I'm
12 sorry there's a little bit of background noise.
13 I'm having a little bit of trouble hearing you.
14 Did you want me to address any particular
15 questions?

16 HEARING OFFICER KRAMER: Well, first of
17 all we need to swear you as a witness.

18 MR. OKTAY: Okay.

19 HEARING OFFICER KRAMER: So, do you have
20 to stand on the telephone?

21 (Laughter.)

22 HEARING OFFICER KRAMER: How will we
23 know?

24 MR. OKTAY: I will stand up and raise my
25 right hand.

1 HEARING OFFICER KRAMER: And the court
2 reporter will swear you in.

3 THE REPORTER: This is the court
4 reporter, Mr. Oktay.
5 Whereupon,

6 SAMUEL OKTAY
7 was called as a witness herein, and after first
8 having been duly sworn, was examined and testified
9 as follows:

10 THE REPORTER: Could you please state
11 and spell your name for the record.

12 MR. OKTAY: My name is Samuel J, as in
13 John, Oktay, O-k-t-a-y.

14 HEARING OFFICER KRAMER: Mr. Ratliff, go
15 ahead.

16 DIRECT EXAMINATION

17 BY MR. RATLIFF:

18 Q Yes, Mr. Oktay, this is Dick Ratliff,
19 counsel for staff. Are you present today to
20 present the final determination of compliance for
21 the Air District?

22 A Well, I was just notified about this
23 hearing this morning when I just returned from
24 some meetings. I was actually out previously in
25 the week.

1 So I'm trying to rev back up on this
2 particular project. So, I'm going to do my best
3 to give the information that you need. I do have
4 the F-DOC up on my computer at this time, and so
5 my intent is to answer your questions as
6 completely and accurately as I can at this time.

7 Q Okay, thank you.

8 A Sure.

9 MR. RATLIFF: Mr. Kramer, I'm not sure
10 exactly what we're doing here. Did you want to
11 submit Mr. Oktay to cross-examination now without
12 the benefit of having Mr. Walters involved? Or --

13 HEARING OFFICER KRAMER: I'm just
14 assuming he's here for the purpose of making that
15 certification required under the statute.

16 MR. RATLIFF: That's right; that's his
17 limited purpose here. And that is what he has
18 done.

19 HEARING OFFICER KRAMER: Mr. Harris, do
20 you have any questions of the witness?

21 MR. HARRIS: We have no questions. I
22 just wanted to note that Mr. Rubenstein and Mr.
23 Hill from the applicant are here, as well, and are
24 familiar with the document, if there are questions
25 about that. We might wrap up air quickly

1 together.

2 HEARING OFFICER KRAMER: So, let me ask
3 if any of the intervenors, knowing that the staff
4 experts will continue to be available, and the
5 applicant's experts, have any questions of the Air
6 District representative.

7 MS. BELENKY: I just have a few short
8 questions. I didn't realize we were going to have
9 a separate Air District representative.

10 HEARING OFFICER KRAMER: Well, go ahead,
11 then.

12 CROSS-EXAMINATION

13 BY MS. BELENKY:

14 Q I had a couple of questions about the
15 greenhouse gas emissions estimates. Did you -- do
16 you know how the calculations were made on the
17 greenhouse gas emissions?

18 A I don't believe I referenced the
19 greenhouse gas emissions in my document. The
20 greenhouse gas requirement is something that's
21 relatively new. And being that this project has
22 been in work for about two years, at the time that
23 we worked it, it was not as big an issue then as
24 it probably is today.

25 So I don't -- I'm looking at my table of

1 emissions and notice, that's table 1 on page 12 of
2 the F-DOC, and there are no CO2 emissions
3 referenced there.

4 I don't know which numbers you're
5 referring to.

6 MR. RATLIFF: I don't think those are in
7 the F-DOC, Mr. Oktay. Those are basically staff-
8 calculated numbers.

9 You can save those questions for Mr.
10 Walters.

11 MS. BELENKY: Okay, thanks. Could I
12 just ask for a clarifying question. The Air
13 District certification does not address the issue
14 of greenhouse gas emissions, is that correct?

15 MR. OKTAY: That is correct. We did not
16 address greenhouse gas emissions. That is a
17 recent, I believe AB-32 requirement, came after
18 this document was generated.

19 MS. BELENKY: Thank you.

20 HEARING OFFICER KRAMER: Any other
21 questions for Mr. Oktay? Okay, sir, thank you for
22 testifying and you may be excused.

23 MR. OKTAY: Okay, thank you.

24 HEARING OFFICER KRAMER: Okay, cultural
25 resources.

1 MR. RATLIFF: Okay, we have present Ms.
2 Beverly Bastian, who is in the cultural resources
3 unit for the staff. The author of the staff
4 testimony was Michael McGuirt, and he is
5 unavailable right now. So Ms. Bastian is familiar
6 with the, I think all the testimony, but in
7 particular I think the issues which I understand
8 Mr. Connor is interested in asking questions.

9 So, we would like to make her available
10 for cross-examination on the cultural resources
11 testimony.

12 HEARING OFFICER KRAMER: Okay. Ms.
13 Bastian, you probably weren't sworn in, so let's
14 take care of that step.
15 Whereupon,

16 BEVERLY BASTIAN
17 was called as a witness herein, and after first
18 having been duly sworn, was examined and testified
19 as follows:

20 THE REPORTER: Would you please state
21 and spell your name for the record.

22 MS. BASTIAN: Beverly Bastian.
23 B-e-v-e-r-l-y B-a-s-t-i-a-n.

24 HEARING OFFICER KRAMER: You need to be
25 fairly close to that microphone. First, could you

1 verify for us what Mr. Ratliff said of you, that
2 you are familiar with the testimony in this case?

3 MS. BASTIAN: I read and reviewed the
4 early version of it, the preliminary version. But
5 I have to say I did not review the final version.
6 I have familiarity, but I would not say any real
7 expertise on the exact information in that
8 document.

9 DIRECT EXAMINATION

10 BY MR. RATLIFF:

11 Q Did the early version include the
12 discussion of the resources on the, I'm not sure
13 how to characterize it, but the hill that is
14 adjacent to the site?

15 MS. BASTIAN: I believe you're referring
16 to the sort of stacked stone resource that was on
17 the, I think they call it Anselberg?

18 MR. RATLIFF: Yes.

19 MS. BASTIAN: Yes, I did read about
20 that.

21 MR. RATLIFF: And so have you discussed
22 that all with Mr. McGuirt?

23 MS. BASTIAN: We did discuss it a lot
24 because it was enigmatic, as sort of how we
25 referred to it. We were not able to, in a

1 preliminary fashion, identify the origin or
2 purpose of the feature.

3 And it's my belief that Mr. McGuirt
4 pursued, by means of communications with various
5 experts on various aspects of possible cultural
6 resources that could relate to that, attempting to
7 identify it better, and to determine its function,
8 so it would be possible to make a determination of
9 eligibility for the California Register and/or the
10 National Register for that resource.

11 But he was not able to -- he got a few
12 guesses from people, but he was not able to
13 definitively identify it.

14 MR. RATLIFF: Yes, Mr. McGuirt told me
15 that he had spread very widely a description of
16 the findings that he had made there and tried to
17 solicit any information that he might receive from
18 academic sources or other sources that --

19 MS. BASTIAN: Right.

20 MR. RATLIFF: -- might help explain the
21 nature of those finds. But you're telling me that
22 nothing came of that then?

23 MS. BASTIAN: That's my understanding.

24 MR. RATLIFF: Can we make the witness
25 available for questioning?

1 HEARING OFFICER KRAMER: Mr. Harris, did
2 you have any questions of this witness?

3 MR. HARRIS: I have no questions. I
4 wasn't even sure what Dr. Connor was going to ask
5 about, so may not have been the subject, but I
6 have no questions at this time, no.

7 HEARING OFFICER KRAMER: Okay, thank
8 you. And, Dr. Connor.

9 DR. CONNOR: Yeah, I've just got a few
10 quick questions.

11 HEARING OFFICER KRAMER: You may begin.

12 CROSS-EXAMINATION

13 BY DR. CONNOR:

14 Q A few questions about this site. The
15 site that we're talking about is referred to as I-
16 SEGS 1 in the FSA, is that correct?

17 MS. BASTIAN: Frankly I do not remember
18 how it was designated.

19 DR. CONNOR: Okay. Okay. I believe
20 it's correct, from the description of it. Could
21 you give us a little brief -- a brief description
22 of actually what the features are?

23 MR. HARRIS: I'm sorry to interrupt, but
24 I'm concerned about getting too deep into
25 information that has to be filed, by law,

1 confidentially about these sites --

2 (Parties speaking simultaneously.)

3 DR. CONNOR: Yeah, I --

4 MR. HARRIS: Are you aware of all
5 those --

6 DR. CONNOR: -- these sites, yeah, yeah,
7 I'm --

8 MR. HARRIS: -- limitations, Michael?

9 DR. CONNOR: Okay, all right, I'm sorry,
10 I've been involved in looking at some cultural
11 resource issues before.

12 MR. HARRIS: Okay, I just didn't --

13 DR. CONNOR: -- avoid locations. I just
14 wanted a little brief description so that the
15 Commission and everybody here has a better idea of
16 what's going -- what's happening on that site and
17 so on. Because it's not clear from the FSA.

18 MR. HARRIS: I just want to be -- just
19 want to make one more point about this particular
20 find.

21 DR. CONNOR: Um-hum.

22 MR. HARRIS: The applicant, staff and
23 consultants were given very strict direction not
24 to reveal information about a cultural resource to
25 prevent possible vandalization and what-have-you.

1 And so I think we've very carefully
2 adhered to the law in that respect. I want to
3 make sure that we don't create a record that is
4 contrary to that.

5 But, I'm comforted though that you
6 understand all that, so --

7 DR. CONNOR: Yeah, I'm not asking you to
8 reveal any more than what is in the FSA, which is
9 on the CEC website. I don't need more information
10 on the actual structure than that.

11 Okay, so the question was, can you give
12 a brief description of the site.

13 MS. BASTIAN: I have to say frankly I
14 could not do any better job of describing it than
15 what was in the FSA. I did not personally visit
16 that site, so I haven't seen it. I just have sort
17 of a general memory of stacked stones in the sort
18 of terracing effect in sort of a triangular
19 arrangement. And I'm sorry I can't do any better
20 than that.

21 DR. CONNOR: Okay, that's fine, you
22 know, I just want to make sure we're both talking
23 about the same site, since there was a little
24 confusion about whether it was I-SEGS-1 or not.

25 Okay, so can you describe to us what the

1 effects of the project will have on that site, if
2 any?

3 MS. BASTIAN: It's my understanding that
4 the project won't have any effects on that site.
5 They are not disturbing, not doing anything
6 destructive that I know of to that anselberg.

7 DR. CONNOR: Okay, so the I-SEGS-1 site
8 is not going to be impacted by the project? That
9 was the question I had. I couldn't work out from
10 the document whether it was actually going to be
11 impacted or not.

12 MR. RATLIFF: Because we didn't describe
13 the exact location, I assume.

14 DR. CONNOR: Well, it actually didn't
15 describe the impacts. It didn't say the site was
16 going to be moved, whether the site was going to
17 be recovered, you know.

18 MR. HARRIS: Can we be off the record
19 for just a second, Mr. Kramer?

20 HEARING OFFICER KRAMER: Let's go off
21 the record.

22 (Off the record.)

23 DR. CONNOR: Thank you, Mr. Harris.
24 Okay, so, Ms. Bastian, so we're agreed then that
25 this cultural site is not going to be direly

1 impacted by the project?

2 MS. BASTIAN: That's my understanding.

3 DR. CONNOR: Okay. Then I have no
4 further questions.

5 HEARING OFFICER KRAMER: Any other
6 questions for the witness? Is that a no?

7 MS. CUNNINGHAM: That was a yes.

8 HEARING OFFICER KRAMER: Mr. Emmerich.

9 MR. EMMERICH: Thank you.

10 CROSS-EXAMINATION

11 BY MR. EMMERICH:

12 Q I'd like to know if any of the -- if one
13 modern tribe in particular was consulted about the
14 cultural resources on the site, and that would be
15 the Timbisha-Shoshone Tribe, which this site
16 actually occurs on their homeland, or within the
17 boundary.

18 MS. BASTIAN: I'm sorry, I don't know
19 that. If it's -- hopefully, whatever the groups
20 that were discussed in the FSA would be the extent
21 of those that were consulted is best of my
22 knowledge.

23 MR. EMMERICH: Thank you.

24 HEARING OFFICER KRAMER: Any further
25 questions?

1 MS. BELENKY: Timbisha.

2 MR. HARRIS: Can you just write it down
3 for us? Yeah, if you'd write down the name,
4 please.

5 MR. RATLIFF: Can we close that issue
6 down?

7 HEARING OFFICER KRAMER: I think so. I
8 see no further questions, so --

9 MS. BELENKY: Let me just, before
10 closing on the issue I just want to state for the
11 record that we did raise questions in our
12 prehearing statement, I believe, or maybe in our
13 first opening testimony regarding whether the
14 tribes, and it's not just the Timbisha-Shoshone,
15 there are other tribes that are actively
16 interested in this area, and have -- it is their
17 homeland, as well.

18 And whether they were properly notified
19 by the state or the federal government. And for
20 the Center's part, at least, we are pursuing those
21 questions in the federal forum primarily.

22 So just -- it's not that we are giving
23 up our questions about this issue, whether they
24 were properly notified, whether there has actually
25 been consultation. It's just in this forum we

1 believe it's more -- better for us to deal with it
2 on the federal side.

3 MR. RATLIFF: I think I neglected to
4 move the FDOC into evidence.

5 HEARING OFFICER KRAMER: Well, when we
6 finish the air quality you can do it at that time
7 with --

8 MR. RATLIFF: Okay, thank you.

9 HEARING OFFICER KRAMER: -- everything
10 else you might have.

11 MR. RATLIFF: Fine.

12 HEARING OFFICER KRAMER: As far as
13 cultural resources go, then I think we can close
14 the topic with the introduction of the appropriate
15 exhibits.

16 MR. HARRIS: Again, section 1-C of our
17 prefiled testimony includes exhibits 1, -- I'll go
18 slow this time -- 2, 3, 57, 4 --

19 HEARING OFFICER KRAMER: When you skip a
20 page like that, go even slower, 57 is already in.

21 MR. HARRIS: Okay, than go back to 4, 5,
22 8, 13, 20, 21, 24, 25, 32 --

23 HEARING OFFICER KRAMER: 20, 21, 24?

24 MR. HARRIS: Um-hum, 24, and then -- 20,
25 21, 24, 25 and 32, 33.

1 HEARING OFFICER KRAMER: Any objection
2 to the receipt of those documents into evidence?
3 Seeing none, they are received.

4 Mr. Ratliff, do you have anything beyond
5 the FSA, which has already been received?

6 MR. RATLIFF: I don't believe so.

7 HEARING OFFICER KRAMER: Okay, then
8 again, we'll have a cleanup round at the end of
9 all the testimony where we'll discuss any exhibits
10 that haven't already been received into the
11 record.

12 Okay, that's it for cultural. How long
13 do the parties estimate it will take for land use?
14 Who has questions, again? Ms. Cunningham, Ms.
15 Belenky.

16 Applicant?

17 MR. HARRIS: Is that land use?

18 HEARING OFFICER KRAMER: Land use.

19 MR. HARRIS: Okay, we're going to have
20 to call our land use witness and get her to be on
21 the phone, so.

22 HEARING OFFICER KRAMER: Okay, then
23 since we're likely to be breaking soon, --

24 MR. HARRIS: In the room we do have the
25 rest of our -- we have our air quality witnesses

1 and our water witnesses.

2 HEARING OFFICER KRAMER: I think that
3 makes sense, then. Let's go with the air quality.
4 We may not finish it, but we can get started.

5 MR. HARRIS: Okay.

6 HEARING OFFICER KRAMER: And are we
7 going to do this as a panel?

8 MR. HARRIS: I thought we were going to
9 have everybody on this one, Dick?

10 MR. RATLIFF: It would be fine with us
11 to do it that way. We have Mr. Walters on the
12 line, I think.

13 DR. WALTERS: Yes, you do.

14 HEARING OFFICER KRAMER: There he is.
15 Did we forget to swear you in earlier, or did we
16 take care of that?

17 DR. WALTERS: I have not been sworn in.

18 HEARING OFFICER KRAMER: Okay, and we
19 have a couple of gentlemen in the room that
20 probably have not, as well. So, why don't we wait
21 till they get ready.

22 And then if there is anyone else in the
23 room here who is going to be testifying on one of
24 the other topics today, why don't you take this
25 opportunity to be sworn in as a witness, as well.

1 Whereupon,

2 PROSPECTIVE WITNESSES

3 were called as witnesses herein, and after first
4 having been duly sworn, were examined and
5 testified as follows:

6 HEARING OFFICER KRAMER: Okay, let's
7 have the witnesses identify themselves, beginning
8 with Mr. Walters.

9 DR. WALTERS: I'm William Walters,
10 W-a-l-t-e-r-s. I'm a consultant with the Aspen
11 Environmental Group, working with the Energy
12 Commission. I prepared the air quality and
13 greenhouse gas testimony.

14 HEARING OFFICER KRAMER: Does any party
15 need to hear his -- actually, we're getting a
16 signal, I believe, that we are ready to adjourn
17 for Commissioner Rosenfeld's celebration.

18 So we'll adjourn and go off the record
19 in a second. But if the parties will stick around
20 and if there's some business we can conduct on an
21 informal basis, we'll attempt to do that.

22 So we're adjourned for the -- we're not
23 adjourned for the day, we are recessing for the
24 moment.

25 (Recess.)

1 HEARING OFFICER KRAMER: Back on the
2 record. Mr. Walters, you were sworn, as were our
3 other witnesses. And Mr. Walters identified
4 himself. So let me let the rest of the witnesses
5 identify themselves.

6 MR. RUBENSTEIN: My name is Gary
7 Rubenstein, Sierra Research; air quality
8 consultant for the project applicant.

9 HEARING OFFICER KRAMER: Okay, and the
10 other gentleman?

11 MR. HILL: My name is Steve Hill,
12 H-i-l-l, and I also work at Sierra Research.

13 HEARING OFFICER KRAMER: Do any of the
14 parties require that these witnesses describe
15 their qualifications? If not, will you stipulate
16 to their expertise?

17 MR. HARRIS: We'll stipulate.

18 HEARING OFFICER KRAMER: Seeing no
19 objection, so stipulated. Thank you.

20 Mr. Harris, did you want to ask a few
21 opening questions, or Mr. Ratliff?

22 MR. HARRIS: I just wanted to do my
23 typical adoption of the documents, my questions of
24 Mr. Rubenstein, if I could. And then I've got
25 probably two, three minutes of direct. Would you

1 like to proceed, Dick, then?

2 MR. RATLIFF: No, go ahead.

3 MR. HARRIS: Okay. So either one of you
4 can answer on behalf of the two of you. You've
5 already stated your name and spelled it for the
6 court reporter. Peter, do you need spellings?
7 Okay, we're good.

8 DIRECT EXAMINATION

9 BY MR. HARRIS:

10 Q And what subject matter testimony are
11 you here to sponsor today?

12 MR. HILL: Air quality.

13 MR. HARRIS: And were the documents that
14 you're sponsoring part of your prefiled testimony?

15 MR. HILL: Yes, they were.

16 MR. HARRIS: Are there any changes,
17 corrections or clarifications to your testimony?

18 MR. HILL: No, none.

19 MR. HARRIS: And were the documents
20 prepared either by you or at your direction?

21 MR. HILL: Yes, they were.

22 MR. HARRIS: Are the facts stated
23 therein true to the best of your knowledge and
24 belief?

25 MR. HILL: Yes, they are.

1 MR. HARRIS: And are the opinions stated
2 therein your own?

3 MR. HILL: Yes, they are.

4 MR. HARRIS: And do you adopt this as
5 your testimony for the proceedings?

6 MR. HILL: Yes, I do.

7 MR. HARRIS: Steve, would you please
8 briefly summarize your testimony for the
9 Committee?

10 MR. HILL: Yes. The testimony that we
11 submitted is the air quality impact analysis. It
12 was prepared as part of the application. Air
13 quality impact analysis describes the air quality
14 setting that is existing conditions of the air in
15 the region that the project is going to be
16 developed.

17 Best available control technology, which
18 is technology that is required to minimize the
19 emissions from the stationary sources of the
20 pieces of equipment in the project.

21 We used computer models, dispersion
22 models, to model the air quality impacts to insure
23 that we are going to be in compliance with all
24 applicable air quality standards.

25 We discuss potential offsets or

1 mitigations for the air quality impacts. And go
2 through all -- again, identify all of the air
3 quality regulations, federal, state and local,
4 that apply to the project. And demonstrate
5 compliance with each of those.

6 MR. HARRIS: Thank you. I'm just going
7 to make them available for questions at this
8 point.

9 HEARING OFFICER KRAMER: Ms. Belenky, I
10 know you have questions.

11 MS. BELENKY: I do have questions and I
12 had anticipated that the staff might go first and
13 I would ask them several questions. But I'm happy
14 to start with you. Or if the staff is available
15 we could kind of go back and forth.

16 MR. RATLIFF: Yeah, I think we should
17 just make Mr. Walters available, and I'll do that
18 without the formality of any questions.

19 MS. BELENKY: And he's on the phone, is
20 that correct?

21 MR. RATLIFF: Yes, that's right.

22 MS. BELENKY: Okay, thank you. I think
23 that'll be more efficient. Most of my questions
24 relate to the greenhouse gas emissions issue.

25 //

1 CROSS-EXAMINATION

2 BY MS. BELENKY:

3 Q The project description -- I'm sorry if
4 this is ground we've covered before, but it is
5 important to the greenhouse gas issue -- the
6 project description states that the gas boilers
7 will be used no more than one hour a day on
8 average.

9 But, however, the conditions from the
10 Air Quality Management District allow for the use
11 of the gas boilers four hours a day. So that's
12 sort of the premise that we're going to be dealing
13 with for several of these questions.

14 The greenhouse gas appendix, which I
15 think is called appendix air-1, greenhouse gas
16 emissions, and that is in the FSA at 6.1-59,
17 that's the page number.

18 For operations it states the amount of
19 greenhouse gas emissions, which will be 27,000 per
20 year. What amount of gas boiler use was used to
21 calculate the amount of greenhouse gases in this
22 table? And the table is on page 6.1-65.

23 DR. WALTERS: Yes, I'm pretty sure, and
24 I can actually open this file if you want to wait,
25 I'm pretty sure I used the district's permit, 1460

1 hours per year, to calculate just the boiler use.
2 The others, again, are also based on either limits
3 on the district permit, which gives the emergency
4 generators to fire -- engine. Or estimate in
5 terms of the amount of usage that they had given
6 for the burners (inaudible) and the other
7 (inaudible). But in terms of the boilers I
8 believe it was the 1460.

9 Now, one thing I should add is that is
10 somewhat conservative because they have that in
11 the condition, that the fuel use for the boilers
12 be no more than 5 percent of the solar heat input.

13 So the boiler number is conservative on
14 that basis. If I were to try to, I think, the
15 equivalent, that to the solar, it would come out a
16 little lower. Unfortunately, I don't know the
17 exact solar input that'll be coming in on an
18 annual basis, you know, to a real concise level,
19 but I --

20 MR. RATLIFF: Just to clarify, Mr.
21 Walters, when you say conservative, you mean that
22 it's been over-estimated, is that correct?

23 DR. WALTERS: Yes, it's been over-
24 estimated.

25 MS. BELENKY: Thank you. I would like,

1 you said that you would need to check to be sure.
2 And I would like you to check. It doesn't have to
3 be right this minute, but I would like to be
4 clear, because it is very unclear in the document.

5 And it is essential to the calculations.
6 And therefore I would like to know which number
7 was used.

8 MR. RATLIFF: When you say which number,
9 could you --

10 MS. BELENKY: What number of hours of
11 use of the gas boilers. He said he would need to
12 check to be sure. And I would like him to check.

13 MR. RATLIFF: Okay.

14 MS. BELENKY: As to your statement that
15 this is a conservative number, that may be --
16 that's your opinion given the staff limitation of
17 5 percent. However that, as I understand it, the
18 applicant has opposed that limitation.

19 So I just want to make that clear that
20 that has not already been determined.

21 MR. RATLIFF: And which condition of
22 certification are you referring to when you
23 say --

24 MS. BELENKY: The condition of 5
25 percent. I believe I have the number here

1 someplace, the condition number --

2 DR. WALTERS: It's AQ-SC-10. And the
3 last I heard the applicant was not going to
4 contest that condition. But I'll let them --

5 MR. RATLIFF: We didn't think that
6 condition was contested.

7 MR. HARRIS: Ask Gary. It's not.

8 MR. RATLIFF: Mr. Rubenstein, can you
9 clarify? Is there a -- do we have a disagreement
10 that --

11 MR. HARRIS: Let's ask Lisa. Where's
12 your citation -- where did you get the question
13 we're opposing AC-SC-10?

14 MR. RUBENSTEIN: I can answer the
15 question, I was just waiting for someone to do
16 that.

17 MS. BELENKY: I believe you proposed
18 eliminating it. So it may have been that you've
19 changed your --

20 MR. HARRIS: Take you time, I need you
21 to get this right, so take your time.

22 (Pause.)

23 MS. BELENKY: Okay, it's actually AQ-SC-
24 10, and in your opening testimony from the
25 applicant it crosses out the entire provision.

1 I'm not sure if you meant to do that, perhaps that
2 was a mistake. But it does show that it's page 37
3 of the pdf of the applicant's testimony.

4 MR. RUBENSTEIN: Is there a question?

5 MS. BELENKY: We're just discussing what
6 their position is on this AQ-SC-10. Did you write
7 this testimony?

8 MR. RUBENSTEIN: Yes, my name is on it
9 and I did.

10 MS. BELENKY: Okay, and so did you cross
11 out the condition AQ-SC-10?

12 MR. RUBENSTEIN: Yes, we did cross that
13 out and proposed elimination of that condition in
14 our prefiled testimony.

15 MS. BELENKY: I thought there was some
16 complication between -- I'm confused now. Your
17 testifying for the applicant, is that correct?

18 MR. RUBENSTEIN: That's correct.

19 MS. BELENKY: And the applicant's
20 attorney said that they did not oppose the
21 condition.

22 MR. HARRIS: The applicant's attorney
23 was mistaken. I did not remember that. The
24 prefiled written testimony is the applicant's
25 testimony, and I was mistaken. It is what it is.

1 MR. RUBENSTEIN: If I can complete this,
2 because the answer's a lot simpler. This was
3 discussed in the air quality workshop in December.
4 The CEC Staff indicated that they preferred to
5 keep that condition in, and we agreed to withdraw
6 our request to delete it.

7 MS. BELENKY: Okay, I have no record of
8 that, so I have no way of knowing that. Thank
9 you. Thank you, that's very useful.

10 All right, so with the 5 percent limit I
11 guess I would ask staff how that calculation, I
12 believe it's the person on the phone, -- I've
13 forgotten his name, I'm sorry --

14 MR. SPEAKER: Will Walters.

15 MS. BELENKY: Mr. Walters, I'm sorry.

16 DR. WALTERS: Yeah,, I'm looking at the
17 spreadsheet now and trying to work it out. I
18 believe I probably used the information provided
19 by the applicant. And so I'm just trying to
20 figure out if that actually relates to this 1460
21 or not.

22 MR. RUBENSTEIN: Would it be acceptable
23 for me to try and help Mr. Walters to figure out
24 what that information is?

25 MS. BELENKY: Yes.

1 MR. RUBENSTEIN: Will, I think the key
2 number you need to look for is a value of 480,000
3 mmBtus per year.

4 DR. WALTERS: Right, that is what I
5 used.

6 MR. RUBENSTEIN: Okay, then that number
7 is based on the 5 percent assumption.

8 DR. WALTERS: That's with the 5 percent
9 assumption, right.

10 MR. RUBENSTEIN: That's correct. You'll
11 find that number in the application for
12 certification.

13 DR. WALTERS: All right, the in that
14 case the number that's presented is actually
15 consistent with the AQ-SC-10. So the GHG
16 emissions are consistent with staff's recommended
17 condition.

18 MS. BELENKY: Okay, so the greenhouse
19 gas assumptions assume -- the greenhouse gas
20 calculation assumed 5 percent -- the 5 percent
21 limit, and does that calculate to a certain number
22 of hours of boiler use on average? How do those
23 two things relate?

24 Because the document talks about the
25 boiler use time, and now you're talking about 5

1 percent. And I understand there should be a
2 pretty clear ratio between those two. I just want
3 to make sure I understand it.

4 MR. RUBENSTEIN: No, there is no clear
5 ratio between the two. They're very different.
6 Emissions are based on the amount of fuel burned,
7 which is only very loosely correlated with the
8 number of operating hours.

9 The number of operating hours could be
10 as much as four hours per day every day. And as
11 long as the fuel use does not exceed the 5 percent
12 value specified in AQ-SC-10k, the calculations of
13 emissions are fully accurate.

14 DR. WALTERS: Yeah, let me augment that
15 answer a little bit. The issue there also relates
16 to the fact the boilers may be operated at part
17 load, for part of the time, either during startup
18 or when it's working to augment the steam
19 production. So, the number of hours are flexible
20 because of that.

21 If you were to relate 480,00 to full-
22 load hours, it would be approximately 520.

23 MS. BELENKY: Thank you, that was very
24 helpful. The 520 hours per year figure is more
25 than one hour per day average, which is discussed

1 throughout the document, the FSA. And that's
2 partly why this is in issue for us, and it's very
3 confusing.

4 If you actually calculated it based on
5 the 520 hours a year that is, I believe, less than
6 half of the maximum under the permit, is that
7 correct?

8 DR. WALTERS: Well, the 520 related to
9 staff's condition, so the (inaudible) that
10 condition. So you don't have to really worry
11 about the 1460 that's allowed in the boilers.
12 Really, that's more of a number in terms of hours
13 and fuel, whereas our condition, AQ-SC-10 is fuel-
14 related, and therefore -- the greenhouse gas
15 emission stay at 5 percent.

16 MS. BELENKY: Okay, --

17 MR. HILL: Just also to answer a
18 question that you raised. At no time in any of
19 the calculations are the annual hours of operation
20 part of the calculation.

21 We calculate annual emissions based on
22 annual fuel use, not on hours of operation.

23 DR. WALTERS: Right, annual fuel use is
24 based on that 5 percent value of the solar --

25 MS. BELENKY: Thank you. I am trying

1 very hard to understand what you're -- I think I
2 now understand how you did your calculation.

3 What I'm trying to relate it to is, as a
4 person reading the document, because CEQA
5 documents are supposed to be documents provided to
6 the public so that they can understand the
7 process, and understand the project.

8 Now, repeatedly throughout the document
9 it says the boilers will be used for no more than
10 one hour a day. And then it says that the maximum
11 is four hours per day. Then when you look at the
12 greenhouse gas tables, it's very clear that all of
13 the greenhouse gas emissions are coming from the
14 boilers.

15 So that's what I'm trying to find out.
16 What is the condition, what is the maximum use,
17 and how were they calculated. And I can tell you
18 for sure this was not clear the way this was
19 written.

20 So, I'm really happy to be getting this
21 out. And I don't want you to feel like I'm being,
22 harassing you to try and understand it. It is
23 important that the public understands this.

24 MR. RUBENSTEIN: I only found the one-
25 hour-per-day reference three times in the FSA. If

1 you found it more often, it might be helpful, we
2 might be able to answer your questions if I could
3 figure out where else you saw it.

4 MS. BELENKY: Three times is significant
5 in my opinion because it's in the project
6 description, it's in the description of how you
7 calculated the air quality, --

8 MR. HILL: No, it's not, actually.

9 MS. BELENKY: It is in the greenhouse
10 gas section. It is --

11 MR. HILL: That one hour a day?

12 MS. BELENKY: Yes.

13 (Pause.)

14 HEARING OFFICER KRAMER: While she's
15 looking, let me ask a question. Because I may
16 have to summarize this discussion -- decision.

17 If we said it's one hour a day at full
18 load, would that be (inaudible). Is it the
19 problem some here that it might operate at times
20 far less?

21 MR. RUBENSTEIN: The correct way to
22 phrase it would be, it would be the equivalent of
23 operating all three boilers at full load, 1.4
24 hours per day, actually, which someone rounded
25 down to one.

1 But I think the important element of the
2 phrase is the equivalent of, because, in fact,
3 this has never been characterized, and is not
4 intended to be, a limitation on daily operations.

5 As both me and Mr. Walters have
6 indicated, all of the calculations are based on
7 fuel use. That's where the pollutants are formed.
8 And those calculations are all consistent.

9 DR. WALTERS: And they're all on an
10 annual basis.

11 MR. RUBENSTEIN: Well, to be more
12 precise, the worst case day reflects up to four
13 hours of operation of all three boilers at full
14 load. And the remaining calculations for longer
15 term average periods are based on the 480,000
16 mmBtus per year, which roughly correlates to the 5
17 percent number we've been talking about. And
18 that's a fuel-based, fuel-use limit that's equal
19 to 5 percent of the solar thermal heat input.

20 HEARING OFFICER KRAMER: Ms. Belenky's
21 not quite ready yet, so let me ask another
22 question. This solar-thermal heat input, is that
23 the theoretically available solar -- or is that
24 the energy, the solar energy that's actually
25 converted to steam -- or just when the operator

1 has the mirrors pointed at the receivers?

2 MR. RUBENSTEIN: I believe that number
3 is the design basis for the plant. So it's not a
4 theoretical number, it's a real number. But,
5 again, any uncertainty in that number, in our
6 calculations, is addressed by the fact that we
7 were using a fairly precise fuel use number of
8 480,000 mmBtus per hour for our calculations and
9 for the staff's calculations.

10 HEARING OFFICER KRAMER: Okay, well, I
11 guess what I'm getting at is to understand SC-10,
12 so if for some reason the plant were operated at
13 let's say 50 percent of what it theoretically
14 could have been operated at, would the heat input
15 from the sun, the solar heat input be that reduced
16 amount of solar energy that was actually collected
17 and used to generate electricity? Or would it be
18 a theoretical maximum use that the plant could
19 make of the sun?

20 MR. RUBENSTEIN: Let me take a look at
21 the condition to be sure I correctly answer your
22 question, Mr. Kramer.

23 HEARING OFFICER KRAMER: I'm thinking
24 because it asks for annual solar (inaudible) that
25 it must be some kind of variable.

1 (Parties speaking simultaneously.)

2 DR. WALTERS: -- but, yes, it is. It is
3 for the annual heat input. So there could be some
4 minor variability (inaudible). I certainly would
5 expect it to be operated to maximum potential as
6 much as they can.

7 MR. RUBENSTEIN: I think the answer to
8 Mr. Kramer's question more precisely, it's not 5
9 percent of a theoretical maximum. It's 5 percent
10 of the actual solar heat input during the course
11 of each year. So it is a variable.

12 HEARING OFFICER KRAMER: So then
13 somebody is calculating how much the clouds, the
14 clouds that actually came by that year, were
15 reducing the heat input, that sort of thing?

16 MR. RUBENSTEIN: I believe that was all
17 done as part of the project description and other
18 elements of the application for certification. We
19 merely carried out those same assumptions.

20 HEARING OFFICER KRAMER: Okay, thank
21 you.

22 MS. BELENKY: Thank you. I did find the
23 reference in the greenhouse gas, in the FSA in the
24 greenhouse gas appendix on page 6.1-64. It says
25 the proposed I-SEGS project would cause greenhouse

1 gas emissions from the power block maintenance
2 activities, including minor cleaning and minimal
3 undesired vegetation removal, the weekly testing
4 of emergency generators and fire water pump, one
5 hour per day operation of each boiler and employee
6 trips."

7 But it is in there. It is --

8 MR. HILL: That's the FSA. That's not
9 our testimony.

10 MS. BELENKY: Yes, okay. I'm sorry. I
11 was talking to the wrong person. The person's on
12 the phone.

13 Mr. Walters, then, I guess is speaking
14 for the FSA. My understanding, in reading the
15 document, is that this was calculated at one hour
16 per day, whereas the air district's permit is at
17 four hours per day. Staff's limitation of 5
18 percent usage would bring it down to some number
19 less than four hours a day on average.

20 And if I understand your testimony
21 correct, Mr. Rubenstein, your estimate for that
22 would be more like 1.4 hours per day for a maximum
23 of 520 hours. And that's how the calculation was
24 done.

25 DR. WALTERS: You know, I'm still trying

1 to find your reference, where you identified the
2 one hour in the GHG section. Do you have a page?

3 MR. RUBENSTEIN: Mr. Walters, it's the
4 last paragraph -- or first paragraph under the
5 heading, project operations, on page 6.1-64.

6 (Pause.)

7 DR. WALTERS: Last paragraph on -64?

8 MR. RUBENSTEIN: No. Sorry. The first
9 paragraph under the heading, project operations,
10 the last sentence.

11 DR. WALTERS: Okay. Then I understand
12 where the question's coming from. The numbers for
13 the boiler operation are based a little bit more
14 than one hour per day; they are based on the 5
15 percent. That probably should have been
16 (inaudible).

17 MS. BELENKY: Thank you, Mr. Walters.
18 And would you now say that your previous statement
19 that it was a conservative estimate, do you still
20 believe it's a conservative estimate? Or do you
21 think it's a fairly accurate estimate?

22 DR. WALTERS: Based on remembering now
23 what the basis is, I would have to say it's upper-
24 limit estimate based on the condition
25 requirements.

1 So it's probably -- it might still be a
2 little bit conservative, it depends on the actual
3 language, which cannot exceed the value.

4 MS. BELENKY: Thank you, Mr. Walters.
5 Were you on the phone this morning when we had
6 testimony from the project applicant regarding the
7 5 percent limit?

8 DR. WALTERS: Yeah, I wasn't listening
9 in with as much concentration as I might have.
10 But I was just waiting for the air quality topic.

11 MS. BELENKY: That's okay, I won't ask
12 you to characterize what he said, but I'm not sure
13 that -- I'm not sure it's a fair characterization.
14 I don't have an expert, myself, to make a
15 statement about that.

16 It seems to me quite clear that the
17 applicant would like to -- will be using the full
18 5 percent. So I withdraw my rambling statement,
19 I'm sorry.

20 So, 520, now we're all set, 520 was the
21 number that was used to calculate the greenhouse
22 gas emissions. No. Five percent was used, which
23 is some estimate --

24 MR. RUBENSTEIN: No, --

25 MS. BELENKY: Okay. Can you just

1 explain to me in your own words what the basis of
2 the estimate of greenhouse gas emissions is?

3 MR. RUBENSTEIN: Well, first of all,
4 once again, to clarify. The applicant did not
5 prepare any estimate of greenhouse gas emissions.
6 We prepared estimates of emissions of other
7 pollutants based on a maximum annual heat input to
8 the three boilers of 480,000 mmBtus per hour. And
9 that number roughly corresponds to an engineering
10 estimate of what the 5 percent of the solar-
11 thermal heat input would correspond to.

12 Our values for annual emissions were not
13 based on any assumptions regarding the number of
14 hours of operation per year, nor were they based
15 on anything other than this 480,000 mmBtu per
16 year, which was the number, as I said, that
17 correlates roughly to the 5 percent value.

18 It's my understanding, based on what Mr.
19 Walters said earlier this afternoon, that he took
20 that exact same number, the 480,000 number, and
21 used that to calculate the greenhouse gas
22 emissions from the boilers.

23 DR. WALTERS: Correct. I used the two
24 input numbers, as provided by the applicant, for
25 the boilers, for the emergency engine, for the

1 fire pump, various assumptions in terms of vehicle
2 miles traveled, or the onroad equipment, as well
3 as estimates that we were able to obtain for
4 (inaudible) and converted those all into carbon
5 dioxide equivalents.

6 MS. BELENKY: Thank you, Mr. Walters.
7 So you're saying you used the number 480,000 Btus
8 as the basis for your calculation?

9 DR. WALTERS: Yes, rounded up to that.
10 My spreadsheet is actually 479.

11 MS. BELENKY: Thank you. Okay. I just
12 have a few more questions, a few questions about
13 the construction greenhouse gases. Was the same
14 -- no, it wouldn't have been the same. Let's
15 start over.

16 Can you please clarify the basis for the
17 construction phase of the project for the --
18 there's a number in there of 17,779 metric tons of
19 greenhouse gases. But it's unclear from the
20 document if this is the number for overall
21 construction, which is expected to take four
22 years, or for each of the four years. Can you
23 please clarify that?

24 DR. WALTERS: Yes, it's construction
25 period total. And my calculations essentially

1 used, again, vehicle miles traveled estimate, as
2 well as estimate on the amount of gallons of
3 diesel use for offroad equipment. And then using
4 (inaudible), coming up with CO2 equivalent.

5 And, again, as I said, it's for the
6 entire construction, all three units, for the
7 entire period.

8 MS. BELENKY: Thank you. And I'm
9 actually not sure how much concrete is used in the
10 construction. But did this include any estimates
11 for concrete use and manufacture?

12 DR. WALTERS: We used mainly more
13 direct, we didn't do lifecycle or go beyond
14 project siting. So, in terms of, you know, the
15 CO2 emissions from the construction, any part of
16 the facilities that are moved onto the facility,
17 those emissions are not -- they're essentially the
18 direct construction emissions that are occurring
19 from travel to and from the facility, and for
20 construction at the facility.

21 MS. BELENKY: Thank you. And I think
22 you've answered my next question, which was
23 whether you looked at any of the manufacturing
24 components or transportation of the components to
25 the site. Did you look at any of the greenhouse

1 gas emissions from those elements of the project?

2 DR. WALTERS: We did look at
3 transportation to the facility based on final
4 transportation like for the trucking --

5 MS. BELENKY: Can you clarify that?
6 Final transportation?

7 DR. WALTERS: Essentially we made an
8 assumption of where materials would come in, or
9 actually maybe the applicant did that, because I'm
10 looking -- mine actually has a vehicle miles
11 traveled estimate. So we used what they provided
12 in the criteria pollutant emissions spreadsheet.
13 Just essentially added up all the miles, which
14 include essentially trucking the materials to the
15 site.

16 Beyond that, it's just shipping from
17 overseas, manufacturing, other lifecycle CO2
18 emissions were not factored in.

19 MS. BELENKY: Well, let me ask the
20 applicant a follow-up question. What was the
21 assumption with the transportation then? Is that
22 transportation of all of the elements of the
23 project?

24 MR. HILL: All of the round trips are
25 based on a round-trip distance from Las Vegas to

1 the site. So the assumption for the delivery
2 materials is that equipment would be shipped by
3 rail to a rail-head in Las Vegas, and then
4 transported by truck to the site. So these are
5 truck emissions.

6 MS. BELENKY: For the final leg of that.
7 And can you tell me, if you know, where most of
8 these elements, for example the heliostats, would
9 be originating?

10 MR. HILL: My understanding is that they
11 would be coming from Europe.

12 MS. BELENKY: Okay, so from the place of
13 manufacture none of the manufacturing greenhouse
14 gases were accounted for. And then the shipping
15 to get all the way to Las Vegas, none of that was
16 accounted for, is that correct?

17 MR. HARRIS: I'm going to object. This
18 is beyond the scope of the direct testimony.
19 There's no testimony about lifecycle analysis and
20 the assumptions that are being asked about here,
21 so. I know where you're going, but it's not in
22 our testimony, so feel free to brief it.

23 MS. BELENKY: I'm just trying to make
24 sure I understand the documents and Mr. Walters
25 made it quite clear that he used the applicant's

1 numbers. I was asking the applicant's experts.

2 HEARING OFFICER KRAMER: The objection's
3 overruled. If the witnesses don't know the
4 information, they can certainly say so.

5 MR. RUBENSTEIN: I just want to clarify
6 for the record once again that the applicant did
7 not prepare any calculations of greenhouse gas
8 emissions.

9 MS. BELENKY: Thank you. But you did
10 prepare an estimate of transportation emissions
11 from Las Vegas for other aspects of the
12 construction, is that correct?

13 MR. HILL: For criteria pollutants, yes.

14 MS. BELENKY: For criteria pollutants.
15 Thank you. I have just a few more questions for
16 staff.

17 Mr. Walters, is it correct to say that
18 the -- and we have Commissioners here, I suppose
19 they could answer -- is it correct to say that the
20 Commission has not adopted yet any significant
21 threshold for greenhouse gases?

22 DR. WALTERS: I'm not sure that that is
23 exactly accurate. If you're talking about setting
24 numeric levels, then, you know, there isn't a
25 specific numeric level.

1 We do have significance criteria which
2 relate to how facilities integrate into the
3 system. And whether or not, you know, that
4 integration causes an impact of greenhouse gases.
5 But it's more of a systemwide analysis than a
6 project site analysis. That is reasonable for a
7 global --

8 MS. BELENKY: Thank you. I just wanted
9 to ask a couple more questions, and these relate
10 to the Commission's report that was placed into
11 evidence, or judicially noticed in this matter
12 called Committee Guidance on Fulfilling California
13 Environmental Quality Act Responsibilities for
14 Greenhouse Gas Impacts and Greenhouse -- in -- I
15 lost my train of thought -- in Power Plant Siting
16 Applications, Power Applications. Is that really
17 the title?

18 It was judicially noticed in this matter
19 about a month ago. Are you familiar with that
20 guidance, Mr. Walters?

21 DR. WALTERS: You know, I may be. The
22 specific title is awfully long and doesn't come to
23 memory. But I try to keep up with all of the
24 activity in greenhouse gases. When was this
25 document published?

1 MS. BELENKY: I'm opening it again.
2 Sorry. A couple of different things here. Oh,
3 here it is. It was from March 2009, and it's
4 called The Committee Report on Fulfilling
5 California Environmental Quality Act
6 Responsibilities for Greenhouse Gas Impacts in
7 Power Plant Siting Applications.

8 DR. WALTERS: I guess what you should
9 probably do is just ask questions based on that.
10 Called the CMRI report, I'm not sure, we used a
11 bunch of shorter names for it.

12 MS. BELENKY: Sorry, I didn't know --

13 MR. RATLIFF: Ms. Belenky, to just
14 understand the relevance of these questions. Is
15 the relevant issue that we're actually addressing
16 whether or not this project increases global
17 warming gases? Is that really the question? Or
18 is that a relevant issue in this case? Or can we
19 assume that this project reduces global warming
20 gases, as that presumably was the reason for
21 proposing it.

22 MS. BELENKY: Well, that's a very
23 interesting sort of meta-question. I think --

24 MR. RATLIFF: Well, I mean I just wonder
25 where we're going with this discussion. It has

1 taken a lot of time.

2 MS. BELENKY: Where we're going right
3 this minute with the discussion is that the
4 Commission's report says that you should consider
5 greenhouse gases for every project, even a
6 renewable energy project.

7 So if this were a different kind of
8 project with the exact same level of greenhouse
9 gases it would be considered --

10 MR. RATLIFF: But --

11 MS. BELENKY: -- and how it's
12 considered, and whether it's significant are
13 issues --

14 MR. RATLIFF: Well, let me -- let me
15 object --

16 MS. BELENKY: -- that we should be
17 discussing.

18 MR. RATLIFF: -- on the grounds of
19 relevance. In this project is this an issue to
20 this project? What is the relevance of your
21 question to whether this project improves global
22 warming?

23 MS. BELENKY: The relevance is that it
24 will actually increase greenhouse gases in the
25 first four years due to construction until it's

1 operating, certainly.

2 And that actually all projects, no
3 matter what, it will be adding to greenhouse gases
4 in and of itself.

5 There's an assumption that there's some
6 offset because it is producing energy without the
7 level of greenhouse gases of other projects. But
8 that doesn't mean that when siting this project we
9 shouldn't at least consider these issues, and
10 significance.

11 We believe that just based on your own
12 documents the significance was -- you're making
13 assumptions -- sorry, sorry --

14 HEARING OFFICER KRAMER: I have a
15 ruling. And that is that the objection is
16 overruled. There is an analysis in the FSA,
17 however, I'll point out --

18 MR. RATLIFF: Yes, because as --

19 (Parties speaking simultaneously.)

20 MS. BELENKY: Um-hum, there is.

21 MR. RATLIFF: -- Ms. Belenky points out,
22 we have made that requirement on ourselves. And
23 we do so. There's nothing wrong with that. But
24 is it relevant to this particular case such that
25 we're spending hearing time on it.

1 It's not clear to me that it is, and
2 that's why I made the objection.

3 MS. BELENKY: I'm just curious, are you
4 objecting to my trying to understand the amount of
5 emissions --

6 HEARING OFFICER KRAMER: Well, okay.
7 We've ruled, so --

8 MS. BELENKY: Okay.

9 HEARING OFFICER KRAMER: -- why don't
10 you ask your question.

11 MS. BELENKY: I just wanted to ask a few
12 questions about the significant threshold.

13 MR. HARRIS: Are you using that term in
14 a legal sense? Are you talking about a CEQA
15 threshold? Or what are you --

16 MR. RATLIFF: Can I just address that?
17 We haven't adopted any significant threshold. I
18 think Mr. Walters said that. That answers that
19 question.

20 HEARING OFFICER KRAMER: That was an
21 asked-and-answered objection, I gather?

22 MS. BELENKY: That's fine.

23 HEARING OFFICER KRAMER: And that is
24 sustained.

25 MS. BELENKY: That's fine. Well, now

1 that I've found out that the applicant has
2 withdrawn its objection to the 5 percent
3 limitation, I think that ends my questions on this
4 topic. Thank you.

5 HEARING OFFICER KRAMER: Any other
6 parties wish to ask questions? None from the
7 intervenors. Staff or the applicant wish to ask
8 any redirect?

9 MR. RATLIFF: No.

10 MR. HARRIS: I don't think we have any,
11 either, do we, Gary or Steve? No, no more -- no
12 redirect.

13 HEARING OFFICER KRAMER: Okay. Then
14 thank you panelists. You're excused. Do you want
15 to introduce any documents at this time, or wait
16 until later? Your choice.

17 MR. HARRIS: I think we're closing out
18 air, so I'd like to introduce my documents, if we
19 could.

20 HEARING OFFICER KRAMER: Okay.

21 MR. HARRIS: Again, prefiled in section
22 1-C, I'll go through the direct testimony first.
23 Section 1-C of our opening testimony, exhibits are
24 as follows: Exhibit 1, exhibit 2, exhibit 57,
25 exhibit 50, exhibit 4, exhibit 5, exhibit 7,

1 exhibit 20 --

2 HEARING OFFICER KRAMER: 57, 50 and then
3 go back and start there.

4 MR. HARRIS: I'm sorry, 1, 2, 3, 57, 50,
5 4, 5, -- should I slow down?

6 HEARING OFFICER KRAMER: No, you're
7 good.

8 MR. HARRIS: Okay. 7, 20, 32, 53,
9 51, --

10 HEARING OFFICER KRAMER: 51 or 61?

11 MR. HARRIS: 5-1, 55, that's 5-5, 59, 5-
12 9, and 61, 52, 58, 56, 60 and 62. And then no
13 rebuttal testimony. So that's our list.

14 HEARING OFFICER KRAMER: Any objections?
15 Seeing none, then they're received in evidence.

16 Staff, anything beyond the FSA?

17 MR. RATLIFF: Yes, the FDOC, which is
18 exhibit 306.

19 HEARING OFFICER KRAMER: Any objection?

20 MR. HARRIS: No.

21 HEARING OFFICER KRAMER: That's
22 received. Thank you. Any exhibits from any of
23 the intervenors?

24 MS. BELENKY: On air quality?

25 HEARING OFFICER KRAMER: Yes, air

1 quality. Okay. That closes out air quality.

2 Let's go on to land use. Now, Ms.

3 Stennick was -- is your witness here now, Mr.

4 Harris?

5 MR. HARRIS: Our witness is going to be

6 telephonic, and I think we --

7 HEARING OFFICER KRAMER: Ms. Stennick

8 was here, but she's not here now.

9 MR. KESSLER: Mr. Kramer, she's on her
10 way down right now.

11 HEARING OFFICER KRAMER: Okay. Can you
12 get your witness on the telephone now?

13 MR. HARRIS: Mr. Carrier is attempting
14 to do that right now. I guess -- are they
15 questions for my witness or are they for staff?
16 We just put them on as a panel?

17 (Pause.)

18 HEARING OFFICER KRAMER: Do we think you
19 have your witness on the phone?

20 MR. HARRIS: Is Jennifer Scholl on the
21 phone?

22 MS. SCHOLL: Yes, I'm on the line.

23 MR. HARRIS: Hi, Jennifer; it's Jeff
24 Harris.

25 MS. SCHOLL: Hi, Jeff.

1 MR. HARRIS: We're just gathering -- I
2 guess Amanda is here -- we've gathered Amanda.

3 Just to give you some context, Jennifer,
4 I think the way we're going to do this make both
5 you and Amanda available as a panel to answer
6 questions from the intervenors. So it's the same
7 thing you've been through before. It's a typical
8 Energy Commission proceeding. You'll be sworn.

9 She has not been sworn, Mr. Petty.

10 And then I don't have any direct
11 examination. I don't know if Mr. Ratliff has any
12 direct examination for the witnesses.

13 MR. RATLIFF: I thought it was just to
14 make the witness available for questions.

15 MR. HARRIS: Okay. So are you going to
16 do qualifications or any introductory stuff,
17 either, Dick, or --

18 MR. RATLIFF: It wasn't my intent.

19 MR. HARRIS: Okay. I think I'll skip
20 those this time if that's okay with everybody. So
21 it sounds like what we'll do is just make you
22 available, with Amanda, for cross-examination,
23 Jennifer.

24 MS. SCHOLL: All right.

25 HEARING OFFICER KRAMER: Okay, so the

1 two of you, and then anyone who's joined us in the
2 audience who wasn't previously sworn and may
3 testify today, if you will take the oath at this
4 point in time by standing.

5 Whereupon,

6 JENNIFER SCHOLL, AMANDA STENNICK and

7 PROSPECTIVE WITNESSES

8 were called as witnesses herein, and after first
9 having been duly sworn, were examined and
10 testified as follows:

11 HEARING OFFICER KRAMER: So, Mr. Harris,
12 Mr. Ratliff, I gather you just wish to -- well,
13 let's have the witnesses identify themselves for
14 the recording and spell their names for the
15 accurate transcription of those names.

16 MS. STENNICK: Amanda Stennick, Planner
17 III with the California Energy Commission. My
18 last name is spelled S-t-e-n-n-i-c-k.

19 MS. SCHOLL: Jennifer Scholl, CH2MHILL,
20 Land Use Task Leader. Last name is spelled
21 Scholl, S-c-h-o-l-l.

22 HEARING OFFICER KRAMER: Thank you. So
23 I gather that neither the applicant or the staff
24 have any questions of these witnesses. So we will
25 open this panel up to questions from the

1 intervenors.

2 Intervenor, if you could just identify
3 yourself when you first speak for Ms. Scholl, so
4 she knows who you are and who you represent, it
5 would be helpful.

6 And, Ms. Cunningham, do you want to go
7 first?

8 MS. CUNNINGHAM: Laura Cunningham.
9 Maybe my question is for Ms. Stennick because it's
10 concerning the FSA.

11 CROSS-EXAMINATION

12 BY MS. CUNNINGHAM:

13 Q On page 3-6 of the FSA it says the
14 applicant proposes an increase in 300 acres for
15 project boundary. And then on page 1-6 it says
16 the applicant proposes some project-related
17 activities to occur outside the fence on land not
18 included in the proposed right-of-way.

19 Is this the same, or is this additional
20 to the 300 acres?

21 HEARING OFFICER KRAMER: I'm wondering
22 if you're looking at the FSA or some other
23 document. Because the pagination certainly sounds
24 different.

25 MS. CUNNINGHAM: I guess I'm looking on

1 the pdf. The pdf --

2 HEARING OFFICER KRAMER: No, it wouldn't
3 be that different, the page numbering. Although I
4 think there were some -- actually there were some
5 irregularities in the pagination of one version of
6 the pdf that I saw.

7 But I think each section had -- if it
8 was not in order, at least the numbering was
9 consecutive. So I don't think it would have had a
10 1-something, and then a 3-something.

11 MS. CUNNINGHAM: Well, it was in the
12 executive summary, which was 1-6.

13 HEARING OFFICER KRAMER: Oh, okay,
14 that's a different section of the FSA.

15 MR. HARRIS: Can you give us the page
16 numbers again? I'm sorry, Ms. Cunningham.

17 MS. CUNNINGHAM: Well, in my pdf it was
18 page 1-6, and then page 3-6.

19 HEARING OFFICER KRAMER: Well, the land
20 use section is 6.5-. Okay, so 3-6 is the project
21 description?

22 MS. CUNNINGHAM: Yes, that's correct.

23 HEARING OFFICER KRAMER: Okay.

24 MR. HARRIS: So, I'm sorry, I want to be
25 sure we've got the right page. So, on 1.6, which

1 part in 1.6? Was it the 377.5 acres? Is that the
2 -- what number were you --

3 MS. CUNNINGHAM: Just page 1-6, the
4 sentence begins: In addition to use of the
5 proposed right-of-way area, the applicant proposes
6 some project-related activities to occur outside
7 of the project fence on land not included within
8 the proposed right-of-way area." And it
9 continues.

10 I was just curious how many acres that
11 was. And was that the same as the proposed
12 increase in 300 acres? Or was that in addition?

13 MR. RATLIFF: Perhaps I should explain
14 that Ms. Stennick did the land use testimony in
15 chapter 6. The project description -- is this the
16 executive summary or the project description?
17 You're talking about the executive summary, I --

18 MS. CUNNINGHAM: There is part of this
19 in the executive summary and part of it in project
20 description. But it was -- I guess I'm confused,
21 because it's a land use of the project, so.

22 MR. RATLIFF: Right, I think -- I'm
23 trying to decide who -- I mean that was written, I
24 believe, by Mr. Hurshman from BLM and our Project
25 Manager, John Kessler, and the consultants for

1 BLM, as well.

2 So I just want to make sure that the
3 person who actually wrote it could answer, instead
4 of making Ms. Stennick answer it. If you know the
5 answer, that's great.

6 MR. HARRIS: I think there may be a
7 miscommunication that Mr. De Young might be able
8 to help clear up, although he wasn't listed on
9 this panel, so.

10 HEARING OFFICER KRAMER: Well, this
11 seems to have turned into a cross-over question.
12 So, is there any objection to Mr. De Young
13 offering the answer?

14 Mr. De Young, go ahead.

15 MR. DE YOUNG: That is not correct. We
16 have included, or what will be included in the
17 final right-of-way, it is at the fenceline and
18 then on the upslope side we've got a 20-foot
19 access pathway that will be used for maintenance,
20 post-storm cleanup, that sort of thing, for repair
21 of the fence.

22 On the side slopes we have an eight-foot
23 right-of-way. Again, this is to be contained in
24 the final right-of-way drawn up with the Bureau of
25 Land Management. There's a disconnect; it is not

1 right.

2 MS. CUNNINGHAM: Okay, thanks, that
3 clears that up. That's all.

4 HEARING OFFICER KRAMER: Ms. Belenky.

5 MS. BELENKY: Thank you. I just have a
6 couple questions and mostly they pertain to the
7 new, there's a new exhibit 303. And I think it's
8 a condition land-2.

9 CROSS-EXAMINATION

10 BY MS. BELENKY:

11 Q And it basically is -- this may dovetail
12 to what Mr. De Young was just saying. It requires
13 that the road around the facility, which is
14 presumed to be outside of the fence is actually
15 within the right-of-way granted by the BLM.

16 Do you know which condition that is?

17 MS. STENNICK: Yes, I do. Land
18 condition of certification land-2.

19 MS. BELENKY: Yes, thank you.

20 MS. STENNICK: Yes.

21 MS. BELENKY: And did you help prepare
22 that condition?

23 MS. STENNICK: Yes, I did.

24 MS. BELENKY: Okay, great. So was there
25 any consideration of putting the road inside the

1 fence?

2 MS. STENNICK: There was consideration
3 of that, but to accommodate the project
4 description we changed land-2 so after the fencing
5 was constructed that the inspection, monitoring
6 and maintenance would be outside of the fencing.
7 But it would occur on lands within the buffer --
8 excuse me, the setback area.

9 MS. BELENKY: Thank you. And I guess
10 this is again maybe possibly a cross-over
11 question. One of the concerns is with offroad
12 vehicle use, of course, in the area. And by
13 creating new roads it would increase -- most
14 likely increase the use and bring it to different
15 areas of the valley where it hasn't been
16 historically.

17 And that's why we're asking did you
18 consider bringing the road within the fencing
19 which would not -- then it would not be accessible
20 generally.

21 I realize there's also a separate
22 question of the route, existing route, so.

23 MS. STENNICK: I think that question
24 might be best directed towards the section on
25 traffic and transportation -- or excuse me,

1 recreation. I'm sorry, --

2 MS. BELENKY: I don't know -- I don't --

3 MS. STENNICK: -- sorry, but --

4 MS. BELENKY: -- it may be. I assumed

5 because this was part of the land, we would be

6 able to discuss it. That's fine --

7 MS. STENNICK: Well, if --

8 MS. BELENKY: -- if it's better in

9 another section.

10 MS. STENNICK: Well, I'm -- the way this

11 document has been formatted and in the table of

12 contents, I believe recreation is a stand-alone

13 section. And it was not covered under -- in land

14 use, as is typically done in NEPA documents. So.

15 MR. HARRIS: I think Mr. De Young could

16 provide the answer. This is more project

17 description-type stuff, and that's what, I think,

18 Steve De Young's experience would probably help

19 here.

20 MS. BELENKY: Go for it.

21 MR. DE YOUNG: As you know there are a

22 number of existing roads that bisect the site,

23 that are around the site. And we will be

24 redirecting certain of those. And I hate to call

25 them roads, but they're nonpaved offroad vehicle

1 type access.

2 Again, the Colosseum Road, the main road
3 in will be realigned, as will a number of roads
4 that come in from the northeast. We're required
5 to provide continued access to a mine owner.
6 There's a subsurface and surface mining claim to
7 the east of Ivanpah 3 -- I'm sorry, to the west of
8 Ivanpah 3. And we're required to provide access
9 to that site.

10 And so these roads surrounding the site
11 serve a dual purpose. Yes, they will continue to
12 provide access to the mine claim, and they will
13 also provide access for us to do maintenance work
14 such that we won't have to go back to BLM every
15 time fence maintenance needs to occur to get
16 approval to either fix the fence, outside
17 fenceline, or to clear debris.

18 And I believe we've also noted that
19 during those activities there will be tortoise
20 monitors that will accompany the vehicle to clear
21 the pathway. So from an operations and a
22 maintenance standpoint we got protection in there.

23 But I don't think that in the long term
24 it provides any more access to offroad vehicles
25 than is currently provided on the site.

1 MS. BELENKY: That's fine. We're just
2 trying to figure out where -- your opinion is that
3 it doesn't provide more access, but I believe that
4 it may. We could debate that another time.

5 It seems like this may be an issue for
6 BLM more than the Commission. So I think we will
7 leave it at that.

8 And we have several other questions
9 about potential inconsistency with the federal
10 land management, but I think we will save those
11 for the federal authority. Thank you.

12 HEARING OFFICER KRAMER: Let me just
13 point out that I think it might have been at the
14 first prehearing conference, but at some point I
15 asked about the separate recreation section that
16 was in the -- might have been in the PSA at the
17 time -- how best to handle that.

18 And I believe it was decided by the
19 group that that would be combined -- that
20 discussion would be combined back into land use
21 for the purposes of the Energy Commission
22 decisions.

23 So, I just want to make it clear that
24 we're -- and if you noticed, on the topic outlines
25 that I passed around, we haven't separated it.

1 So, if you're looking for an opportunity to ask
2 questions about recreation, this would be the
3 time.

4 And it sounds as if you've decided to
5 go --

6 MS. BELENKY: Well, we do have concerns
7 about the potential increase in offroad vehicle
8 use and how it would affect the remaining
9 tortoises in the valley, in particular.

10 HEARING OFFICER KRAMER: Well, --

11 MS. BELENKY: And that this would become
12 attractive. So I'm not sure how to get that in
13 here.

14 HEARING OFFICER KRAMER: Well, there's a
15 lot of things you might be saying in your briefs
16 by the way of argument.

17 MS. BELENKY: Yes, yeah.

18 HEARING OFFICER KRAMER: But if you want
19 to elicit facts to support your argument from some
20 of the witnesses, then this would be the time for
21 that.

22 MS. BELENKY: And I believe that's what
23 I was trying to do by asking if they had
24 considered a different configuration for the
25 fence, on the inside. I was trying to see if

1 there were, you know, what the basis of this
2 decision to put it on the outside was.

3 Mr. De Young has testified, if I
4 understand correctly, that he thinks it is a wash
5 as far as access. I don't know that that's a
6 factual -- I think we're not in fact anymore,
7 perhaps. It's --

8 HEARING OFFICER KRAMER: Right, but he
9 also did tell you that he -- what I heard was that
10 it's a requirement of the federal, either as a
11 land user and perhaps to the BLM, that he has to
12 continue to provide access to those parcels to the
13 west. So there does need to be some kind of route
14 that's outside the fenceline. Is that correct,
15 Mr. De Young?

16 MR. DE YOUNG: That's absolutely
17 correct, and it's not just from the west. It's
18 from the south and from the northeast, there are a
19 number of trails and pathways that bisect the site
20 currently.

21 HEARING OFFICER KRAMER: So, having
22 heard all that, do you have any additional
23 questions? Ms. Cunningham --

24 MS. BELENKY: I don't, no. Thank you.

25 //

1 CROSS-EXAMINATION

2 BY MS. CUNNINGHAM:

3 Q Well, Mr. De Young, I've driven that
4 road on the northeast. Would that be redirected
5 right along the northern edge of the fence, or out
6 more away from the project?

7 MR. DE YOUNG: The road from the
8 northeast, and I believe there are actually two of
9 them, and I think one comes close to the Ivanpah 2
10 project and one comes close to the Ivanpah 3
11 project, where those hit the property line, hit
12 the fenceline, the access road around the fence
13 will provide, as it currently exists it would go
14 through the site. This will now provide access to
15 the south and to the north.

16 MS. CUNNINGHAM: So it would be along
17 the fenceline, the outside.

18 MR. DE YOUNG: It's the same road, the
19 same pathway that's been cleared for maintenance
20 access, as continued access for the users of those
21 trails.

22 MS. CUNNINGHAM: Okay, thanks.

23 MR. RATLIFF: Mr. De Young, could I just
24 ask, is it the Colosseum Mine Road, as well? Is
25 that one of the ones that goes around the --

1 MR. DE YOUNG: Coliseum Road, as it
2 comes in from the south of the project, is that
3 what you're referring to?

4 MR. RATLIFF: Yes.

5 MR. DE YOUNG: Yes. As -- that
6 currently goes through, or would go through
7 Ivanpah 2, and that road will be relocated to the
8 south of Ivanpah 2. And then it picks up again up
9 in the north up near Ivanpah 3.

10 We're not cutting off any existing
11 access that exists out there right now.

12 MR. KESSLER: Mr. Kramer, if I can just
13 emphasize a point that I think is really important
14 here, would that be okay?

15 HEARING OFFICER KRAMER: By way of
16 argument again?

17 MR. KESSLER: No, not by way of
18 argument, but just the purpose of the access road,
19 basically the ability to repair the fence.

20 HEARING OFFICER KRAMER: Well, I'm just
21 trying to characterize what you're about to say.
22 Is it testimony or just --

23 MR. KESSLER: It's just clarification in
24 terms of the project access, as staff understands
25 it. And basically the statement is that the

1 stormwater design is for pass-through, through the
2 fenceline. It's not concentrated in, you know,
3 specific stormwater channels.

4 And so we're looking at after storms,
5 from a security standpoint, from a tortoise-
6 exclusion fencing standpoint, the project owner
7 would be on the hook to go out and make repairs to
8 the fence immediately.

9 And in doing so they're expecting that
10 they'd need -- there is a certain amount of
11 influence from the stormwater, and debris that's
12 carried by that stormwater, towards just that
13 could be affected beyond the fenceline.

14 So they're just trying to allow
15 themselves a buffer through that maintenance path
16 in a bearing with the maintenance path that being
17 wider upstream with the incoming, the inflow of
18 flow and debris to have the ability to make
19 repairs to that fence over time.

20 HEARING OFFICER KRAMER: Thank you.
21 Anything further on the topic of land use?

22 DR. CONNOR: Could I just have a little
23 clarification? We can bring up the issue of land
24 use in the context of the discussion of
25 alternatives?

1 HEARING OFFICER KRAMER: No, today --

2 DR. CONNOR: I'm understanding --

3 HEARING OFFICER KRAMER: Yes, you're
4 talking about an alternative site either being
5 consistent or not --

6 DR. CONNOR: Yeah.

7 HEARING OFFICER KRAMER: -- with land
8 use requirements?

9 DR. CONNOR: Yes

10 HEARING OFFICER KRAMER: Yes.

11 DR. CONNOR: Okay, I just want to be
12 sure. I don't want to miss the chance to raise
13 the issue, that's all. But I'd like to raise it
14 at the appropriate time.

15 HEARING OFFICER KRAMER: Thank you.

16 Evidence to be moved into evidence?

17 MR. HARRIS: Documents. Applicant's
18 documents section 1-C again of our prefiled
19 testimony. Slower, Mr. Harris. Exhibit 1,
20 exhibit 2, exhibit 57, exhibit 4, exhibit 5, and
21 exhibit 7. I'd like to put those in evidence.

22 HEARING OFFICER KRAMER: Any objection?

23 Seeing none, they're accepted in evidence.

24 And, staff?

25 MR. RATLIFF: I don't recall if we moved

1 exhibit 303. That was the one that pertains, the
2 most recent testimony on land use, I think. I
3 believe that's all, 303.

4 HEARING OFFICER KRAMER: Okay, then you
5 had not. So any objections to 303 coming into
6 evidence? Seeing none, it's accepted.

7 Okay, --

8 MR. HARRIS: Mr. Kramer, I'm sorry, I've
9 got a housekeeping item that I need to ask Mr.
10 Rubenstein to come back up for, if I could.

11 HEARING OFFICER KRAMER: Okay.

12 MR. HARRIS: And Ms. Belenky will be
13 interested in this. So.

14 HEARING OFFICER KRAMER: Are we
15 reopening air quality? --

16 MR. HARRIS: I think we need to correct
17 Mr. Rubenstein's prior statement. The AFC was
18 filed -- or created nearly three years ago, and it
19 was filed about two and a half years ago.

20 HEARING OFFICER KRAMER: Okay, before
21 you go further, does anybody object to reopening
22 air quality?

23 MR. HARRIS: I want to reopen it for the
24 limited purpose of having Mr. Rubenstein correct a
25 statement. He made an emphatic statement about

1 whether the applicant's witnesses provided any
2 numbers whatsoever on greenhouse gas, and he told
3 you no, I believe, several times.

4 But in his diligence, went back and
5 looked at the AFC, and I'll let Mr. Rubenstein
6 explain the one number he did find in the AFC. He
7 asked me if we ought to correct this, and I said
8 we know about it, we got to correct it. So that's
9 what we're going to do.

10 HEARING OFFICER KRAMER: All right.

11 MR. RUBENSTEIN: Thank you. And I do
12 apologize for the earlier misstatement. As Mr.
13 Harris indicated, we did prepare this AFC a couple
14 of years ago.

15 And in further reviewing it, there is,
16 in fact, one table in the application for
17 certification. For the record, it's table 5.1-28,
18 where we did summarize the greenhouse gas
19 emissions from the project.

20 That summary is fully consistent with
21 the staff's comments. And all the statements that
22 I made earlier regarding the methodology for doing
23 those calculations apply to this table, and apply
24 to our calculations, as well.

25 HEARING OFFICER KRAMER: Thank you.

1 MR. HARRIS: And, Ms. Belenky, did you
2 get the reference again, and do you want a chance
3 to look at it?

4 MS. BELENKY: I did, I just want to look
5 at the page --

6 MR. HARRIS: Yeah, look --

7 MS. BELENKY: -- just so if it matters.

8 MR. HARRIS: That's fine.

9 HEARING OFFICER KRAMER: Okay, in the
10 interest of time, while we're doing that I think
11 we could have the soil and water resources/power
12 plant reliability witnesses begin to come up to
13 the table where Mr. Rubenstein is.

14 (Pause.)

15 PRESIDING MEMBER BYRON: Mr. De Young,
16 just while we have a break in the action here, I'm
17 always intrigued, as we went out to the site,
18 about Colosseum Road. And I kept looking for the
19 Coliseum. Do we have any idea why it's called
20 Colosseum Road out there?

21 MR. MARSHALL: It's the name of a mine
22 in the area that produced gold for years back in
23 the '70s and the '80s.

24 PRESIDING MEMBER BYRON: Forgive me that
25 I didn't turn to staff first.

1 (Laughter.)

2 HEARING OFFICER KRAMER: And I actually
3 -- we're off the record.

4 (Off the record.)

5 HEARING OFFICER KRAMER: Ms. Belenky, do
6 you have any questions for Mr. De Young?

7 MS. BELENKY: Are we starting already
8 with me?

9 HEARING OFFICER KRAMER: Yes. We'll
10 we're checking to see if you're ready to.

11 MS. BELENKY: I do have, yes, on water
12 issues.

13 HEARING OFFICER KRAMER: If we can go
14 ahead, please.

15 MS. BELENKY: Oh, they're not no intros,
16 no nothing? Okay.

17 MR. HARRIS: I'm sorry, are we done with
18 Mr. Rubenstein? Can I release him.

19 MS. BELENKY: Oh, no, I'm sorry. I
20 didn't know we were still on that. Yes, I looked
21 at that. Thank you very much for the correction.

22 HEARING OFFICER KRAMER: Okay, great.
23 Thank you. So we are done with Mr. Rubenstein.
24 Although I guess he'll be back tomorrow as part of
25 the alternatives.

1 MR. HARRIS: He can't get enough of us,
2 yes, he'll be back.

3 HEARING OFFICER KRAMER: Okay. Land use
4 is closed. That was a brief revisit to Air
5 quality. And now we are on to soil and water
6 resources, which we have some cross-over issues
7 with power plant reliability.

8 Has everyone here been sworn? So, let's
9 have the witnesses identify themselves beginning
10 with the gentleman here.

11 MR. LOY: My name is Ken Loy. I'm with
12 West Yost and Associates. I'm a hydrogeologist.
13 My last name is spelled L-o-y.

14 MR. KUBIK: My name is Mark Kubik with
15 West Yost Associates. My name is spelled M-a-r-k
16 K-u-b-i-k.

17 MS. ROSE: I'm Kathy Rose with CH2MHILL.
18 And the last name is R-o-s-e.

19 THE REPORTER: Kathy with a C or K?

20 MS. ROSE: K.

21 MR. FRANCK: Matt Franck, CH2MHILL,
22 Project Planner II. My last name is F-r-a-n-c-k.

23 HEARING OFFICER KRAMER: And staff
24 witnesses?

25 MR. DENNIS: My name is Christopher

1 Dennis, C-h-r-i-s-t-o-p-h-e-r D-e-n-n-i-s. I'm an
2 Energy Commission Staff. I worked on the soil and
3 water section of the FSA.

4 MR. MARSHALL: Paul Marshall, Senior
5 Engineering Geologist, Energy Commission Staff.
6 M-a-r-s-h-a-l-l.

7 MR. STEWART: Todd Stewart, BrightSource
8 Energy. T-o-d-d S-t-e-w-a-r-t.

9 HEARING OFFICER KRAMER: Do any of the
10 parties wish to have the witnesses describe their
11 credentials, or are you willing to --

12 MR. BASOFIN: Mr. Kramer, point of
13 order. There's also a Mr. Robert Dover listed as
14 a staff preparer of the soil and water resources
15 section. I'm wondering if he's available today?

16 MR. RATLIFF: Mr. Dover is a consultant
17 to the BLM and is not available for that reason.

18 MR. BASOFIN: Okay, thank you.

19 HEARING OFFICER KRAMER: Okay. Does
20 anybody want to hear any life stories here?
21 Seeing none, we'll dispense with that portion.
22 Unless, Mr. Harris, you feel it's important
23 to --

24 MR. HARRIS: No, thank you.

25 HEARING OFFICER KRAMER: They're part of

1 the record and they're prefiled statements, by the
2 way.

3 MR. HARRIS: Appreciate the opportunity
4 but I think we're okay, thank you.

5 HEARING OFFICER KRAMER: Okay. And do
6 either of you wish to ask an opening questions of
7 your witnesses, or are you just making them
8 available for questioning?

9 MR. RATLIFF: I asked Mr. Dennis to be
10 prepared to summarize his testimony. And I wanted
11 to keep my promise to him that he'd be able to,
12 so.

13 HEARING OFFICER KRAMER: Mr. Harris, do
14 you have any similar request?

15 MR. HARRIS: No. I think we're prepared
16 to proceed to cross.

17 HEARING OFFICER KRAMER: Mr. Dennis, go
18 ahead and summarize your testimony. Then we'll
19 take questions from the various parties.

20 MR. DENNIS: Okay.

21 DIRECT TESTIMONY

22 MR. DENNIS: I'd like to start out by
23 putting the project in a hydrogeologic setting.
24 The proposed project would be developed on
25 coalescing alluvial fans in Ivanpah Valley, which

1 is a topographically closed valley.

2 The Ivanpah Valley extends across the
3 California state line into Nevada creating what's
4 been defined as the north and south valley.

5 Water in the valley comes from rainfall
6 events in its mountains which washes down into the
7 alluvial-filled valley. What rainfall doesn't
8 reach groundwater is either captured by the
9 vegetation, evaporates off or runs down into the
10 playa lakebed where it evaporates, leaving behind
11 a hard lakebed surface.

12 The Ivanpah playa, downgraded --
13 proposed project is now a world class landsailing
14 location due to the topographic flatness of the
15 playa, the hardness of the playa and the high
16 winds that are generated in that area.

17 Groundwater is the primary natural water
18 supply in the region. The applicant proposes to
19 use groundwater for construction and project
20 operations.

21 Our conclusions and the issues. In
22 general, we are in agreement with BLM on the
23 conclusion for soil and water resources. The
24 proposed project could potentially impact soil and
25 water resources. But, however, we've proposed

1 conditions of certification and mitigation
2 measures that will reduce those potential impacts
3 to levels that are less than significant. Also,
4 the project would conform to applicable LORS.

5 Specifically, our conclusions fall into
6 three general areas. Alluvial channel erosion and
7 heliostat scour, wastewater and water supply.

8 Going over the alluvial channel erosion
9 and heliostat scour, the project will be developed
10 using a low-impact development approach; on
11 approximately 4000 acres of coalescing alluvial
12 fan where flash flooding and massive erosion can
13 occur, impacting the project.

14 In addition, project-related changes to
15 the hydrology of the alluvial fans could impact
16 adjacent property uses and the Ivanpah playa. To
17 mitigate these potential impacts the applicant has
18 completed a hydrological study and monitoring of
19 the alluvial fans.

20 Based upon this work and subsequent
21 confirmation and sensitivity modeling done by the
22 BLM, scour analysis has been performed, to support
23 development of the project design and methodology,
24 so that the heliostats can withstand flash flood
25 flows with minimal damage.

1 In addition, a drainage, erosion
2 sediment control plan would be developed to
3 mitigate potential stormwater and sediment
4 impacts. Furthermore, condition of certification
5 soil and water-5, has been developed that defines
6 methodology for installation of the heliostats,
7 and heliostat monitoring, inspection and damage
8 response. As well as procedures for reconsidering
9 the proposed stormwater management approach if
10 it's necessary.

11 As part of our analysis in this section
12 we say that staff's analysis was -- the completion
13 of our analysis was subject to satisfactory -- the
14 applicant's satisfactory completion of a heliostat
15 pole installation testing, and additional
16 evaluation of potential impacts from the method of
17 construction, or failure to the heliostats to
18 stormwater flows.

19 Between the completion of our FSA and
20 now, we received from the applicant a geotechnical
21 study, analysis of lateral load testing. The
22 applicant's done additional analysis and proposed
23 additional methodologies.

24 In response we've modified conditions of
25 certification soil and water-5 to establish a

1 methodology for incorporating channel erosion and
2 heliostat scour into the design of the
3 construction of the heliostats. And I think that
4 was docketed today.

5 Moving on to wastewater. The proposed
6 project would use an air-cooled condenser for heat
7 rejection and would recycle waste -- processed
8 wastewater, minimizing its use, and conserving
9 fresh water. We see no significant impacts
10 related to wastewater.

11 For the project's water supply we found
12 no significant impacts related to the groundwater
13 use or quality. In Ivanpah groundwater basin two
14 substantial components of the basin's water
15 balance are groundwater recharge through
16 precipitation and groundwater loss through
17 pumping.

18 To insure the project's proposed use of
19 groundwater does not significantly impact
20 beneficial uses of the groundwater or other users,
21 groundwater modeling was conducted by the
22 applicant, with confirmation sensitivity analysis
23 done by Energy Commission Staff.

24 In addition, a groundwater monitoring
25 and reporting program would be required that would

1 identify changes in water levels. Furthermore, we
2 believe that the project should be required to
3 comply with the San Bernardino County's desert
4 groundwater management ordinance.

5 Lastly, staff believes the groundwater
6 monitoring program should be designed to
7 incorporate data for monitoring of the groundwater
8 by the Primm Valley Golf Course, which uses
9 approximately 1600 acrefeet of water a year. This
10 monitoring and reporting program would document
11 any substantial changes to the water levels in the
12 basin.

13 HEARING OFFICER KRAMER: Thank you. Any
14 questions?

15 MR. BASOFIN: I have some questions, Mr.
16 Kramer.

17 HEARING OFFICER KRAMER: Go ahead.

18 CROSS-EXAMINATION

19 BY MR. BASOFIN:

20 Q I have a few questions for staff and
21 they're on the subject of scour. So, I'm
22 wondering if those would be directed most properly
23 to Mr. Dennis or Mr. Marshall.

24 MR. MARSHALL: I think we can both
25 answer them. We've both been working on that

1 subject area.

2 MR. BASOFIN: Okay, thank you. First of
3 all, good afternoon, gentlemen. Thank you both
4 for being here. I'm Joshua Basofin; I'm an
5 intervenor, Defenders of Wildlife.

6 Your analysis of -- first of all, did
7 you complete an analysis of scour in the FSA?

8 MR. DENNIS: An analysis of the scour
9 was completed. And what we've done, as part of
10 the condition for soil and water-5, we've
11 identified a methodology for analyzing scour and
12 its potential impacts to the heliostats --

13 MR. BASOFIN: Okay, --

14 MR. DENNIS: when they're -- after
15 they're installed.

16 MR. BASOFIN: Can you give a brief
17 explanation for us nonengineers of what scour is?

18 MR. DENNIS: Scour is, I guess, the
19 removal of soil around -- there's different kinds.
20 A localized scour is removal of soil around a
21 pole, heliostat. There's generalized scour which
22 can occur across an alluvial fan. And then
23 there's erosion that can occur within channels on
24 an alluvial fan.

25 MR. BASOFIN: Okay, thank you. In the

1 FSA you stated that the calculations and
2 assumptions used to evaluate potential stormwater
3 and sedimentation impacts are imprecise and have
4 limitations and uncertainties associated with
5 them.

6 Can you explain why the calculations and
7 assumptions are imprecise?

8 MR. MARSHALL: A lot of those
9 relationships are based on empirical data and
10 studies that are done in these kinds of
11 environments. And so they're oftentimes, when you
12 have variations across alluvial fans in
13 environments like this, the empirical data don't
14 always point out the same kinds of relationships.

15 And so when we run these analyses we
16 have to take into account that there's the
17 potential for a significant amount of error
18 related to the variation across these types of
19 environments.

20 MR. BASOFIN: Okay, thank you. Given
21 the imprecision of the calculations and
22 assumptions in the scour study, can you make an
23 assessment of the potential for scour advantage,
24 including the potential for glass from mirrors to
25 wash downstream, or heliostat mirrors, themselves,

1 to wash downstream?

2 MR. DENNIS: The potential for scour
3 damage, that would develop methodologies for
4 identifying that potential. It's going to vary,
5 depending on where you are in the alluvial fan.

6 There are portions of the alluvial fan
7 that haven't been active for probably thousands of
8 years. Other portions are active.

9 If you're looking at channels, scour is
10 going to differ, rather than if you're outside of
11 a channel. So, what's been done is a methodology
12 has been established to evaluate that potential
13 scour. And heliostats will be installed to depths
14 to be protected against a potential scour within
15 the area they are installed.

16 MR. MARSHALL: Yeah, to add to what
17 Christopher's saying, we're going to insure that
18 there's adequate penetration depth of the
19 heliostat pole so that based on the depth of scour
20 we insure that there's enough penetration to
21 resist overturning or failure of the mirror.

22 MR. BASOFIN: Okay. What type of a
23 flood event would this measure protect against?

24 MR. DENNIS: It would protect against a
25 100-year, 24-hour storm event. And what's been

1 added is these heliostats are going to be marked
2 for what their current level is after they're
3 installed. And they're going to be monitored.
4 That applicant will develop a monitoring
5 stormwater damage and response plan for evaluating
6 damage to the heliostats.

7 And if they show scour beyond a certain
8 level, they'll have to be repaired, so -- what
9 will happen.

10 MR. BASOFIN: Okay.

11 MR. MARSHALL: So is your question also
12 what magnitude of failure we expected? And how
13 many we thought would fail?

14 MR. BASOFIN: Sure. That would be a
15 good thing to know, yes.

16 MR. MARSHALL: Yeah, well, I guess -- go
17 ahead.

18 MR. DENNIS: The methodology has been
19 established where we don't expect, I would say, a
20 significant amount of heliostats to fail. The
21 amount that's been referenced in the FSA has, I
22 think is no longer valid. The number's actually
23 changed, because we're evaluating how much scour
24 is going to occur at what location. And the
25 applicant will install those heliostats to prevent

1 failure.

2 Do you guys have anything to add?

3 MR. KUBIK: Yeah, I just want to add a
4 little bit to that. You know, we have developed a
5 design procedure that's included in the proposed
6 condition soil and water-5. And the proposed
7 methodology, you know, first of all, it does
8 include some conservative assumptions in regards
9 to flood flow calculations.

10 We are preparing flood flow calculations
11 with the San Bernardino County Hydrology Manual.
12 And that does produce higher design flows and
13 other methodologies from, for example, neighboring
14 Clark County. So we think we're on the high side
15 with the design flow calculations.

16 In addition, we actually used those
17 design flows to calculate the scour depth. We'll
18 be calculating for, in a given region of the
19 active portion of the alluvial fan, we'll be
20 calculating a worst case scour depth and then
21 applying that to all of the heliostats within a
22 region.

23 So all of the heliostats will be
24 designed to withstand that potential worst case
25 scour. And we expect that during a 100-year

1 event, or smaller, there will be no heliostat
2 failures.

3 MR. BASOFIN: Thank you. Mr. Dennis and
4 Mr. Marshall, switching gears a little bit here on
5 the scouring impacts. The FSA also states that
6 there could be potential adverse impacts on desert
7 tortoise habitat as a result of scour, is that
8 right? I'm sorry, as a result of stormwater and
9 sedimentation, I guess would be more precise.

10 MR. DENNIS: I think without proper
11 mitigation there will be a potential there. But
12 as I understand it, all the desert tortoise within
13 the vicinity of the project are being removed,
14 correct?

15 MR. BASOFIN: Well, there's a proposal
16 to relocate desert tortoises to about 1000 feet
17 from the project.

18 MR. DENNIS: So, outside of the project
19 boundaries. And this project is designed as a
20 low-impact development site. So that means that
21 the stormwater that naturally flows, it's going to
22 continue to flow the way it is.

23 I wouldn't expect any potential harm to
24 tortoise habitat or anything like that.

25 MR. BASOFIN: Okay, was there an

1 analysis conducted of potential stormwater and
2 sedimentation impacts in the desert tortoise
3 relocation area, as a result of the project?

4 MR. DENNIS: The project's not -- I
5 don't believe it's anywhere near the desert
6 relocation -- tortoise relocation area.

7 But the stormwater analysis was
8 conducted and a sedimentation analysis was
9 conducted for water flowing onto the site, across
10 the site and downgrade of the site towards the
11 playa.

12 MR. BASOFIN: And it's not possible that
13 water flowing across the site could reach the
14 relocation area 1000 feet away?

15 MR. DENNIS: Could you tell me where the
16 relocation area is?

17 MR. BASOFIN: It's about 1000 feet away.

18 MR. DENNIS: South or north or --

19 MR. BASOFIN: West.

20 MR. DENNIS: Is it between the project
21 site and the playa?

22 MR. STEWART: It's upslope of the playa.

23 MR. DENNIS: I guess if it's upslope of
24 the playa and between the project site and the
25 playa, I guess stormwater would reach that point.

1 However, stormwater reaches that point now anyway.

2 MR. BASOFIN: Okay, thank you. Turning
3 to the condition of certification soil and water-
4 5, which I believe was recently revised, have you
5 had a chance to review the revised condition of
6 certification soil and water-5? Okay.

7 So according to this revised version
8 there's -- actually I think this was in the
9 previous version, there's a stormwater damage
10 monitoring response plan, is that right?

11 MR. DENNIS: I'm sorry, could you repeat
12 the question?

13 MR. BASOFIN: There's a proposed
14 stormwater damage monitoring response plan, is
15 that right?

16 MR. DENNIS: Um-hum.

17 MR. BASOFIN: Okay. Can you explain a
18 little bit about what that plan would -- what it
19 entails?

20 MR. DENNIS: Well, it's itemized here in
21 soil and water-5. Basically what it's designed to
22 do is to identify existing conditions for the
23 heliostats when they're installed. Insure that
24 the heliostats are installed to a minimum depth
25 for stability.

1 And then there will be a short-term
2 instant response plan and a long-term instant
3 response plan

4 Short term could involve repairing of
5 fences, removal of sediment and debris, removal of
6 broken glass. The long-term response plan could
7 include reevaluating the approach to stormwater
8 management for this project.

9 MR. BASOFIN: Okay. Now when I asked
10 you about the uncertainty involved in the modeling
11 and precise calculations you explained that --
12 somebody explained that the heliostats would be
13 inserted into a level that would insure that scour
14 would be reduced.

15 And I think your testimony just now is
16 that the stormwater damage monitoring response
17 plan would insure that those depths were achieved.

18 Is that a plan -- is that monitoring
19 plan to be conducted as construction is ongoing,
20 or after construction is completed?

21 MR. DENNIS: It's to be -- basically
22 what's going to happen is before construction
23 begins the stormwater modeling would be conducted
24 for sub-watersheds of each -- on the playa.

25 A scour analysis will be done for those

1 sub-watersheds. The heliostats will be installed
2 to depths to withstand the estimated scour water
3 for those sub-water basins.

4 Now, like we said, there's uncertainty
5 with that. That's why there's a plan in place to
6 monitor the effectiveness of those estimations,
7 those calculations. And to respond to any
8 differences between what was expected and what
9 actually occurs.

10 MR. BASOFIN: Okay, thank you.

11 HEARING OFFICER KRAMER: Are you
12 finished?

13 MR. BASOFIN: Yes. Thank you.

14 HEARING OFFICER KRAMER: Any other
15 intervenors?

16 MS. BELENKY: I just have a few
17 questions. One is a follow-up.

18 CROSS-EXAMINATION

19 BY MS. BELENKY:

20 Q And this may be one of those things that
21 the grading plan, I think, has changed, because
22 you said that it's a low-impact site. And I
23 believe that -- let me just pull up this figure so
24 I have the right citation.

25 On figure 12, which is in the project

1 description section, it shows various areas of
2 grading. It may be that that is no longer part of
3 the project description. I just want to make sure
4 if that's part of the low-impact site that you
5 analyzed or not.

6 MR. MARSHALL: Yeah, the design for
7 stormwater management on the site has undergone
8 three or four evolutions through the course of the
9 project. So what we have in the application may
10 not necessarily represent where we're at with the
11 design of the project now.

12 We've come along from a grading sediment
13 basin retention-type design to what's being called
14 the low-impact development design, which is a
15 project-wide design, you know, that basically
16 reflects along the natural flows to the site as
17 much as possible, to maintain the natural function
18 and value of the stream and habitat on the site.

19 PRESIDING MEMBER BYRON: Mr. Marshall,
20 please use the microphone --

21 MR. MARSHALL: Oh, I'm sorry, --

22 PRESIDING MEMBER BYRON: -- for those on
23 the phone to be able to hear.

24 MR. MARSHALL: All right.

25 MS. BELENKY: And I'm just trying to

1 make sure, is there a figure that shows a current
2 figure that's been provided either in an exhibit
3 or the FSA that shows the current amount, because
4 there still will be some grading, where that is
5 and how much it is? I'm just trying to make sure
6 I understand the current --

7 MR. MARSHALL: Yeah, actually if you re-
8 ask the applicant to discuss the newest, the
9 latest grading plan that you've come up with on
10 the site, and help us address that question.
11 Because I don't think we've got it in front of us.

12 HEARING OFFICER KRAMER: Just to clarify
13 before you go off in that direction, is project
14 description figure 12 then not the current grading
15 plan?

16 If not, it might be useful for somebody
17 to point us --

18 MR. STEWART: This is about right.

19 HEARING OFFICER KRAMER: So, Ms. Belenky
20 is characterizing this as showing, I gather, more
21 grading than she thinks would be --

22 MS. BELENKY: I just don't know what the
23 current grading is.

24 HEARING OFFICER KRAMER: Maybe, to
25 clarify, there are portions that are outlined in

1 pink that are described as -- the legend says
2 those are light grading. And then there's areas
3 outlined in blue which says they're --

4 MR. DENNIS: Each power block require
5 grading.

6 HEARING OFFICER KRAMER: Let me finish.
7 So is that the case then that the project
8 description figure 12 in the area that's not
9 either outlined in pink or blue is not going to be
10 graded at all?

11 MR. HARRIS: Again, a project
12 description kind of question. I guess I want to
13 make clear to everybody that this is not a final
14 detailed design. This is exactly where we're
15 supposed to be at this point in the proceeding.
16 The detailed design will be a post-approval CPM-
17 approved, BLM-approved project. So, with that
18 note, Mr. De Young can help answer this question,
19 I think.

20 HEARING OFFICER KRAMER: I'm basically
21 asking for a selfish reason that I have to, you
22 know, try to put together a written and
23 illustrated description of some of this stuff when
24 I write the decision. Just trying to get it
25 clear.

1 MR. HARRIS: The short answer is yes,
2 that document is correct. And Mr. De Young can
3 provide some more detail.

4 (Pause.)

5 MR. HARRIS: All right, I'm sorry, he's
6 on the panel, we'll let Mr. Stewart explain.
7 Sorry.

8 MR. STEWART: The document here, which
9 is figure 12, does represent our current thought
10 of where grading is necessary. But as Mr. Harris
11 outlined, this is not the final engineering
12 design.

13 So this represents a rather conservative
14 estimate of grading, meaning the maximum amount of
15 grading that we would expect at this point of our
16 engineering design. But, again, the design is not
17 complete.

18 HEARING OFFICER KRAMER: But then it's
19 the areas that are outlined in blue or pink are
20 the areas proposed for grading?

21 MR. STEWART: Yes.

22 HEARING OFFICER KRAMER: And by and
23 large, the other areas would not be graded?

24 MR. STEWART: That is correct.

25 HEARING OFFICER KRAMER: Okay, thank

1 you. Ms. Belenky, go ahead.

2 MS. BELENKY: Thank you. I just wanted
3 to make sure that I understood. So this is what
4 you were looking at when you said this is a low-
5 impact site with minimal grading? You said that,
6 right? I'm sorry, I've forgotten your name. I'm
7 terrible with names.

8 MR. MARSHALL: This is one of many
9 references that we have that we looked at and
10 talked about when we came up with that approach.

11 MS. BELENKY: And would it be correct to
12 say that several of the graded areas are also
13 areas of the major washes on the site?

14 MR. DENNIS: Potentially, yes.
15 Potentially, yes.

16 MR. KUBIK: I think that's true in the
17 northeast corner, the magenta graded area. I
18 think that is an area with significant washes.

19 HEARING OFFICER KRAMER: You mean the
20 northwest?

21 MR. STEWART: Yes, northwest, you're
22 right.

23 MR. KUBIK: Yes, northwest, I'm sorry.
24 And the grading that's being proposed in some of
25 those areas is really rock removal, removal and

1 relocation of large boulders rather than mass
2 grading as you might think of it for a development
3 project.

4 MR. DENNIS: Just to give an idea of
5 what we mean by low-impact development, the other
6 alternative is construction, is complete
7 management of the stormwater, where you don't let
8 it pass through. And that would involve several
9 retention basins up to 800 feet long, 40 feet
10 deep.

11 So this really is -- it's a pass-through
12 system. We're letting the stormwater pass through
13 rather than trying to manage it. And that means
14 it's going to involve additional analysis for the
15 heliostats to insure that they don't fail with the
16 stormwater flows.

17 MS. BELENKY: Thank you. I'm just
18 trying to -- I think there may be another question
19 or two that deal with this flow-through and the
20 impact.

21 My understanding, to some degree, is
22 that the fencing will have what we call tortoise
23 fencing for the lower half, so it will be fairly
24 smaller mesh, or a mesh that is fairly small. And
25 so the flow through, a lot of these washes carry a

1 lot of sediment and small rock.

2 And so that's what you're talking about,
3 where the maintenance coming out and clearing
4 along the fence, is that correct? I just want to
5 make sure I understand what you're -- that they're
6 going to sit up against the fence. They're going
7 to --

8 MR. DENNIS: Well, it's possible the
9 fences will get washed out. The stormwaters flow
10 on the up-gradient side anyway, and portions of
11 these different phases. So there will be a
12 maintenance associated with that, both desert
13 tortoise fence and the site perimeter fence.

14 MS. BELENKY: Thank you. And is that
15 discussed -- I didn't see that, but perhaps it is.
16 And then

17 MR. MARSHALL: Discussed where? In the
18 staff analysis or --

19 MS. BELENKY: Yeah, I didn't see it, but
20 that's fine. I just had one more question that
21 relates to the grading question. On page 6.9-68
22 is the beginning of a table called appendix B,
23 table 1, with the dredge and fill impacts.

24 And, again, I may be missing this in
25 reading the list, but I didn't see the grading

1 necessarily accounted for there. But maybe it's
2 called something else or --

3 MR. MARSHALL: Are you talking about the
4 grading that you identified on figure 12 in the
5 northwest corner of the site?

6 MS. BELENKY: Yes. Or, well, all of
7 those blue sections and -- the blue and the pink,
8 several of them actually overlap. I believe the
9 one within 2, within Ivanpah 2, also overlaps with
10 a large wash. Oh, that's good, good, -- answer
11 the question, because I'm confused.

12 MS. ROSE: Are you asking staff or --

13 MR. HARRIS: Kathy, you have to use a
14 microphone so that the people on the phone can
15 hear you, and the court reporter, as well.

16 HEARING OFFICER KRAMER: Yeah, we're
17 treating this as a panel, so any member of the
18 panel who has something to offer could offer it.

19 MS. ROSE: Okay.

20 HEARING OFFICER KRAMER: Don't speak on
21 top of each other, but that's about the only rule.

22 MS. ROSE: Well, I think maybe I can
23 answer that because I was the lead on developing
24 the table. The table was prepared for the
25 Regional Water Quality Control Board. It's part

1 of the beneficial use impact assessment.

2 And it was a long drawn out process, but
3 I can tell you that the way that the impacts to
4 washes were characterized, or identified, was
5 based on the assumption that the only impacts to
6 the washes would be associated with being in the
7 road crossings, through them. And the maintenance
8 crossings, or where there were other major roads
9 that would cross them there, you know.

10 So there's a certain amount of -- well,
11 there's a road, you know, associated with all of
12 the road crossings, the trail crossings, the dirt
13 road, the asphalt roads, the heliostat alignments.

14 We did a GIS overlay of every single
15 component of the project that we had at the time.
16 And using GIS technology we ended up calculating
17 impacts for every single size of wash across each
18 of the Ivanpah project sites.

19 So the assumption was that when the
20 roads are installed there is minimal amount of
21 disturbance to the washes that would happen. You
22 know, there would be, you know, perhaps just
23 driving across them would be all that would be
24 needed to, you know, to create a path for access.

25 And in some cases where larger washes,

1 or where asphalt road crossings were going to
2 occur, then there would be, you know, a little bit
3 more substantial. Not to the bed and bank, but
4 just to create access so that you could drive
5 through the wash. So you might cut back a little
6 bit in the bank.

7 So that was all taken into account in
8 calculating the dredge field.

9 MS. BELENKY: Thank you.

10 MS. ROSE: Does that make sense?

11 MS. BELENKY: Yes, it does make sense.
12 I think there may just be like overlapping.
13 Because the one is a broader figure that shows the
14 grading. And then you're saying more of the fine-
15 grained analysis of the roads, and I think you're
16 saying it's picking up those same areas.

17 MS. ROSE: It picks up the entire
18 project site.

19 MS. BELENKY: Thank you very much. I
20 have a few other questions on water resource, the
21 groundwater. But if any -- if other people have
22 more about scour maybe it would make sense to go
23 forward with that.

24 MS. CUNNINGHAM: Laura Cunningham.

25 //

1 CROSS-EXAMINATION

2 MS. CUNNINGHAM: I had a question on
3 soils and water-5, the revision on page 8. Under
4 long-term design-based response. The third down.
5 Proposed design modifications to address ongoing
6 issues. Would that be like fence washouts?

7 MR. DENNIS: I believe what this is for
8 is to -- if the existing low-impact development
9 approach doesn't work, there may be some design
10 modifications necessary to this stormwater
11 management approach. Which could include the
12 construction of detention basins. It would be a
13 change in the project.

14 MS. CUNNINGHAM: My question is what
15 would trigger the need to construct the stormwater
16 management diversion channels and detention ponds?
17 Like, how many fence washouts or maintenance
18 clearing of debris. I mean is there like a
19 threshold that you would use to say that this
20 isn't working?

21 MR. MARSHALL: That's actually a good
22 question. I think we could consider that and
23 possibly -- and think about whether or not there
24 are a certain performance criteria that we ought
25 to implement to insure that we have some kind of

1 trigger to require some change in the design, if
2 it's necessary.

3 MS. CUNNINGHAM: And then it says
4 detention ponds. How big would those be?

5 MR. STEWART: This testimony is getting
6 highly speculative at this point. If it turns out
7 that the fence is washing out a lot, then, you
8 know, the applicant, it's in his best interest to
9 do the repairs and look for ways to improve the
10 situation, particularly on the upslope side of the
11 project.

12 So, you know, we could guess all we want
13 as far as what the potential might be down the
14 road, and whether, you know, one fence out is too
15 much, or ten -- one fence washout is too much, or
16 ten fence washouts are too little.

17 It's in the applicant's best interest to
18 keep the project up and operational. So, just by
19 nature of being out there, we will keep the fence
20 intact. And if it turns out to be a problem, then
21 we'll talk to the Commission and the BLM about how
22 to maybe modify that upslope side of the project.

23 MS. CUNNINGHAM: Well, would the need to
24 do this design modification trigger a new
25 environmental review, so the public could comment

1 on retention ponds and diversion channels?

2 MR. HARRIS: I think you're probably
3 asking to speculate about that. But I'll
4 speculate it for you. My view would be if you
5 were going to put ponds in there, that's a change
6 in the project description that would require an
7 amendment. But I think that's Todd's point about
8 speculation, so.

9 MS. CUNNINGHAM: That answered my
10 question, thanks.

11 MR. HARRIS: Okay, thanks.

12 HEARING OFFICER KRAMER: Any other
13 questions of the scour issue? Then I have one.
14 And that's to, well, it's to the panel, but it's a
15 general question.

16 Is it clear that this is a question of
17 simply how much design -- or design the heliostats
18 correctly so that they will survive the scour once
19 you determine what the amount is? In other words,
20 is it clear that you can solve the problem as long
21 as you go deep enough? But what you're trying to
22 do is just over-design so that you're digging 20-
23 foot holes where a six-foot hole would do the job,
24 for instance?

25 MR. KUBIK: That's a very good

1 characterization of the issue. It's just an issue
2 that we can design them to withstand so much
3 scour. It's just determining exactly what that
4 scour is. And not over-design.

5 HEARING OFFICER KRAMER: Thank you. Ms.
6 Belenky, do you want to continue on with the water
7 basin --

8 ASSOCIATE MEMBER BOYD: Can I ask a
9 question on this --

10 HEARING OFFICER KRAMER: Your mic.

11 ASSOCIATE MEMBER BOYD: I'm trying to
12 straighten out in my mind is the current design
13 for handling stormwater through the facility is
14 dictated by economics, or dictated by the best
15 environmental treatment of the entire area, the
16 habitat in all forms. Doesn't look like there's
17 much ground for recharging, et cetera, et cetera.

18 MR. MARSHALL: Is that a question for
19 staff or --

20 ASSOCIATE MEMBER BOYD: It's a question
21 for anybody.

22 MR. MARSHALL: In staff's --

23 ASSOCIATE MEMBER BOYD: Probably a
24 little more applicant.

25 MR. DE YOUNG: Can I address that? I'm

1 not on the panel but it's, in a way it's a project
2 description question.

3 MR. STEWART: Go right ahead.

4 HEARING OFFICER KRAMER: Seeing no
5 objection, go ahead.

6 MR. DE YOUNG: We did look at ponds at
7 one point and there certainly was a cost issue.
8 But in discussions with both agencies, staff, BLM
9 and CEC, they were enormous ponds and would have
10 had much more significant environmental impact
11 than going with the low-impact design and going
12 with the existing, or what was close to existing
13 ephemeral washes that are out on the site now.

14 With regard to the heliostat, pylon
15 depth is also an issue of cost. Each one of these
16 projects has around 50,000 pylons. And certainly
17 every foot or two feet or three feet that you add
18 adds to cost. And it is not necessary if there
19 are areas of the project site that just do not
20 require deeper placement of pylons; it just
21 doesn't make sense. It's an over-design and a
22 waste of money.

23 ASSOCIATE MEMBER BOYD: I appreciate the
24 latter studies. I was just wondering, ponds
25 sometimes are great, but ponds also are ways to

1 concentrate bad stuff that finds its way into
2 groundwater or causes other problems.

3 I was inferring, maybe improperly, which
4 is why I asked, that maybe this was somewhat
5 driven by economics, but maybe the most ecological
6 way to end the decision.

7 And I was troubled a little bit by the
8 discussion of criteria relative to how many fence
9 washouts might occur as a threshold of some kind.
10 If you have ecological approach where you're going
11 to make better fences, et cetera, et cetera,
12 rather than change the whole design, I would think
13 that --

14 MR. MARSHALL: Yeah, staff could offer a
15 couple of comments, Commissioner.

16 ASSOCIATE MEMBER BOYD: That would be
17 welcome.

18 MR. MARSHALL: You know, the reason it's
19 called low-impact design is that it's a design
20 that's really endorsed and supported by the
21 Regional Water Quality Control Boards in
22 California because of the ability for a design
23 like that to provide -- maintain function and
24 value of stream side habitat and provide
25 groundwater recharge benefits, and a multitude of

1 water quality and water supply benefits.

2 So, to the extent we can balance their
3 design and the current construction and the
4 economics with this design you know, this was
5 staff's preferred approach, was to go with the LID
6 design.

7 The other element, too, going to the
8 comment about us being concerned about the fence
9 washouts. I think we're just throwing in the
10 fence washout as an example. But I think what
11 staff is also concerned about is the bigger
12 picture impact that we may not fully anticipate is
13 that could there be massive failures based on
14 conditions or contingencies that we haven't --
15 that haven't been fully understood because of the
16 fact that we haven't gotten a utility-scale
17 project like this of this magnitude on 4000 acres.

18 So one of the things that we had in this
19 condition was to provide for that opportunity to
20 take a look back and see whether or not there were
21 other measures we needed to think about and talk
22 about doing as a part of the project.

23 ASSOCIATE MEMBER BOYD: Thank you.

24 Someone spoiled the (inaudible) water business.

25 HEARING OFFICER KRAMER: Ms. Belenky, do

1 you have any water supply issues?

2 MS. BELENKY: Thank you. I just have a
3 couple of remaining questions, and the staff has
4 been very -- and actually the applicant have
5 provided some background documents, which have
6 been very helpful to understand the calculation on
7 the water resource, which is the groundwater
8 recharge is the primary question that was, I
9 think, somewhat unclear in the FSA, how the
10 numbers came about.

11 And I just want to walk through it a
12 little bit to make sure that now I understand the
13 staff's position on the groundwater recharge in
14 the area so that they decided that the amount used
15 by this project, so that they could reach their
16 conclusion on the amount of water used by this
17 project, and how it would affect the local
18 groundwater.

19 CROSS-EXAMINATION

20 BY MS. BELENKY:

21 Q So, there's a very high variability in
22 the different studies that have been done in the
23 past on groundwater recharge in this basin. And
24 they range from, I think, the low was around 2000
25 to a high of over 6000 acrefeet per year.

1 And that, of course, we have some
2 concerns that then the staff went with something
3 around 5000, if I remember correctly.

4 And I'm just trying to -- or actually
5 the staff gave a range of estimate. And I did
6 look through the documents and I did look at the
7 research, and I actually did consult with someone
8 who knows a lot more about this than I do, just to
9 make sure I really understood why the staff would
10 come down on the high side.

11 And my understanding, and I would like
12 you to correct me if I'm wrong, is that there was
13 a change between the early estimates and the later
14 estimate that's based on a new estimate of the
15 size of the basin, itself, is that correct?

16 MR. DENNIS: Partly it's correct. And
17 also, well, not just the size. Some of the
18 earlier studies only looked at Ivanpah north, for
19 example, Glancy, more. It used a different method
20 all together looking at input from streambeds.

21 Also the methodology has changed some.
22 For example, in 1968 they had a real crude way of
23 estimating recharge from rainfall. It was on
24 statewide maps for precipitation. Where now we've
25 got, you know, analytical models where we can

1 actually determine pretty, you know, within a
2 reasonable accuracy, I guess, on how much recharge
3 there could be from precipitation.

4 And some of the -- the newer number
5 actually do coincide. We did our own independent
6 analysis, and the only number since Donovan and
7 Katzner in 2000, is lower is ENSR. And that's
8 partly because ENSR under-estimated the size of
9 the basin, and they used the Glancy method for
10 evaluating recharge, which is using that statewide
11 precipitation map that's real generous. It's like
12 counting the whole State of Nevada for how much
13 recharge is occurring. It's a real rough method.

14 MS. BELENKY: Thank you. I think I
15 understand better what you're saying about the
16 failings, the weaknesses of the earlier modeling.

17 And the input into the basin, that is
18 the precipitation numbers, I'm sure you're aware
19 that, you know, there's been a lot of talk in the
20 last ten years that the precipitation averages
21 that people believed were accurate in the
22 southwest were probably grossly overstated because
23 they were mostly done during a period of unusually
24 high rainfall. And that this is a big problem on
25 the Colorado River, et cetera. That's just by way

1 of background.

2 So how did you come up with a
3 precipitation figure that -- what did you use for
4 that figure?

5 MR. DENNIS: If you refer to the staff
6 assessment figure 2, we refer to Oregon State
7 University's PRISM model, which uses local weather
8 stations and develops actually a grid based upon
9 topography, altitude, rain shadows. It's the most
10 sophisticated model we have for precipitation; I
11 think the U.S. Agricultural Department sponsored
12 its development.

13 So we used that. And we used GIS to
14 determine areas where this precipitation is
15 occurring and what altitudes.

16 And, again, it's an estimate. It's the
17 best we can do, you know. It's an ongoing
18 science. And so we did -- we developed kind of a
19 low end based upon that, and then a high end.
20 That's how we got a range.

21 So we thought, well, gee, since our
22 estimate kind of matched up with what Donovan and
23 Katzer did, what ENSR, you know, did if they
24 corrected their area for the watershed, and what
25 the applicant did, we thought that the applicant's

1 estimates were reasonable.

2 MS. BELENKY: Thank you. Does the OSU
3 PRISM model account for high variability areas
4 such as this?

5 MR. DENNIS: Yes. It covers all areas
6 of, at least the southwest United States. And it
7 includes a 30-year database of information,
8 weather information. So it can accommodate
9 fluctuations in weather patterns.

10 MR. MARSHALL: And didn't you also say,
11 Chris, that there are precipitation gauges in this
12 area --

13 MR. DENNIS: Yeah.

14 MR. MARSHALL: -- that were used as a
15 part of the model, so that you could expect that
16 you might have a higher degree of accuracy than
17 you might in other desert basins in California.

18 MS. BELENKY: Is that the one at
19 Mountain Pass? Is that the --

20 MR. DENNIS: I'm sorry, I don't recall
21 all of them. There's one in Searchlight. There
22 may be one in Mountain Pass. There were six, I
23 believe, that the model used.

24 MS. BELENKY: Thank you. And then just
25 to follow up, the average recharge amount, it's

1 still not entirely clear how it takes into account
2 high variability in an area like this where you
3 could have, for example, a four- or five-year
4 drought quite easily. That would not be unusual.

5 So in those years you would have very
6 little or no recharge. And then you'll have a
7 year that's a very high year.

8 And so you're averaging across all of
9 those things. So one year, the amount of water
10 used may be a much higher percentage of the actual
11 precipitation. And other years it's not, is that
12 correct?

13 MR. DENNIS: Yes, it is.

14 MS. BELENKY: Thank you. I think I now
15 understand this. The second thing being it
16 doesn't take into account any kind of trends
17 towards long-term drought.

18 MR. DENNIS: Well, I don't know. It's
19 based upon a 30-year record, the past 30 years.

20 MR. MARSHALL: Which includes two
21 droughts.

22 MR. DENNIS: Yeah, which includes two
23 droughts, and any trends that are evident during
24 that time period. So it's based upon actual
25 records. Or at least incorporates actual records.

1 MS. BELENKY: Thank you. And was there
2 any -- in the modeling is there -- I don't, I
3 think the answer is no to this, but I just wanted
4 to make sure because I've asked a lot of people in
5 the southwest about this.

6 My understanding of the current science
7 on climate change is we don't know whether it's
8 going to increase or decrease actually
9 precipitation in an area like this that's subject
10 to summer storms and so forth. That we just don't
11 know.

12 And so the modeling, I'm assuming, did
13 not take into account any particular change in
14 precipitation that would be expected under that?

15 MR. DENNIS: Well, to the extent that
16 climate change is occurring now, if you look at
17 the most recent 30-year record, if that's any
18 representation of how climate is changing in the
19 past 30 years, it may be a representative record.

20 MS. BELENKY: Yes. Thank you. I think
21 that -- that's very helpful, and thank you for
22 your time really on this.

23 And the only other questions I had are a
24 few questions about water use on the site. I
25 noticed that one of the revisions, and I actually

1 did not write down the page, and so I'm very sorry
2 -- one of the mitigation measures is to screen the
3 golf course. And I understand that's going to be
4 done with trees. Was that water use taken into
5 account?

6 MR. DENNIS: Well, what I can answer
7 this is our condition of certification soil and
8 water-4 has limited the operation water use to 100
9 acrefeet per year, however they use it for
10 operations.

11 MS. BELENKY: Okay. So there wasn't any
12 separate calculation done on that issue.

13 I think that's -- I think that's all my
14 questions. Thank you so much.

15 HEARING OFFICER KRAMER: Any others?

16 MR. EMMERICH: Yeah, I would like to
17 maybe shift it to an issue on water quality.

18 CROSS-EXAMINATION

19 BY MR. EMMERICH:

20 Q I'd like to ask a question about the
21 mirror-washing water that's going to be used. I
22 know of at least one other proposed concentrated
23 solar-thermal project in the Mojave Desert that is
24 actually proposing to add water softeners or
25 chemicals to the mirror-washing water. And I

1 guess that would be to, you know, reduce spotting
2 in an attempt to increase or maintain the
3 efficiency of the output of, you know, the
4 mirrors.

5 And I'm wondering -- and I'm sorry if I
6 overlooked this in the FSA, I didn't see it -- I'm
7 wondering if that's the case with this project.
8 Are you going to be adding any type of water
9 softeners or chemicals to the mirror washing
10 water.

11 MS. ROSE: Is this a project description
12 -- it sounds like it's maybe a question about the
13 project description. But when we evaluated the
14 water quality of the wash water and potential
15 loading of mineral constituents to the soil, we
16 were using the design at the time, which I think
17 has not changed. And the quality of the wash
18 water is almost deionized. I mean there's just
19 very very minor concentrations of some mineral
20 constituents.

21 And so there wouldn't be any water
22 softeners. There wouldn't be, you know,
23 additional sodium added insofar as the project is
24 designed.

25 MR. EMMERICH: And you don't think there

1 could --

2 MS. ROSE: To my knowledge.

3 MR. EMMERICH: -- be a problem with
4 spotting on the mirrors, you know, like after a
5 rainstorm when your windshield, you know, gets
6 water spots on it.

7 MR. STEWART: The mirrors are scheduled
8 to be washed every couple of weeks using the
9 deionized water.

10 MR. EMMERICH: All right. One other
11 question, and I might not be able to ask this
12 because it might branch over into air quality, but
13 I know there -- and let me know, please -- I'm
14 wondering if the water that's going to be used for
15 suppressing dust on the road would have petroleum-
16 based product added to it. And what kind of
17 effects, the long-term effects that would have.
18 And issues like soil compaction and potential, you
19 know, recovery of cryptobiotic crusts. Has any
20 thought been given to that?

21 MS. ROSE: I can just speak to, you
22 know, what my understanding of the project is, is
23 that they're not proposing to add any petroleum
24 products to the water, if the water is used for
25 dust suppression. It would be, you know, -- it

1 wouldn't have any characteristics like that that
2 would have pollutants, you know, in it that could
3 potentially then enter into any of the receiving
4 waters.

5 Your question about compaction and
6 rehabilitation of the site at some point is
7 covered in existing testimony in the restoration
8 and re-vegetation plan. That goes into a lot of
9 detail about rehabilitation of the soil following
10 the 50-year period of operations of the project.
11 So, compaction issues were addressed there.

12 Without, you know, actually turning to
13 the testimony and reading it, I can tell you that
14 the re-vegetation and rehabilitation plan included
15 soil monitoring before the project would start
16 that would maybe give baseline information about
17 the soils that would be taken into account at the
18 end of the project.

19 There isn't any biologic crusts on the
20 site right now that would need to recover, is my
21 understanding. But definitely, you know, soil
22 characteristics like compaction would be taken
23 into account at project closure.

24 MR. EMMERICH: There wouldn't be any on
25 the site, but potentially like, what, after 30 or

1 50 years, you know, recovery. That's where I was
2 getting at. I mean if it were used and there was
3 soil compaction, the recovery potential and re-
4 establishments of microbiotic crust.

5 But I think you answered the question.

6 Thank you.

7 HEARING OFFICER KRAMER: Any further
8 questions from the intervenors? Any questions
9 from staff or the applicant?

10 Okay, this is one of the areas in which
11 we have new proposals for changes to the
12 conditions. I think the discussion of that, those
13 changes, is more in the nature of argument than
14 testimony.

15 So, what I propose is that we close the
16 testimony. And we will deal with the proposed
17 changes tomorrow.

18 I want to make sure that I've identified
19 all of them. I know that there are some in
20 staff's exhibits 302 and 303, and today's latest
21 312. But I wonder if there are any -- I think it
22 would be useful to the parties to be ready
23 tomorrow to make sure and call our attention to
24 any others, new proposals for changes to the
25 conditions.

1 So, Mr. Harris, can you say this evening
2 that you are aware of that?

3 MR. HARRIS: I'm not aware of anything
4 other than what you've just identified. But, I'll
5 check --

6 HEARING OFFICER KRAMER: Okay, well, --

7 MR. HARRIS: -- I'll check with my team.

8 HEARING OFFICER KRAMER: Yeah, if you
9 come up with something just, you know, -- it might
10 be helpful to bring copies of the proposals, just
11 to make sure you've all got something to read from
12 and we're not sifting through our boxes.

13 MR. HARRIS: As I say, I'll check with
14 our team. My understanding is to the extent there
15 are any issues, they're argument and not factual.

16 HEARING OFFICER KRAMER: Yeah, but it
17 would be useful for us to, if for instance all the
18 parties are agreeing or agnostic, to know that
19 tomorrow rather than waiting to read your briefs.

20 MR. HARRIS: Okay, and prepare --
21 propose that --prefer not the brief things, if
22 we're all in agreement. So, sure. Thank you.
23 We'll take that action.

24 HEARING OFFICER KRAMER: Okay. So, we
25 can then close out soil and water, power plant

1 reliability, and as I understood from the
2 prehearing conference that that was questionable
3 whether there would be any questions. And let me
4 just confirm that the parties, the soil and water
5 discussion dealt with the reliability issues which
6 were basically scour taking out the heliostats, is
7 that correct?

8 MR. BASOFIN: Yeah, Mr. Kramer. I think
9 that was -- I think I have to take responsibility
10 for combining those two in my questions; we're
11 answered on both accounts, thank you.

12 HEARING OFFICER KRAMER: Okay, thank
13 you. Okay, so --

14 MR. RATLIFF: Mr. Kramer, one thing that
15 we wanted to mention is that I believe it's
16 exhibit 305, is that correct, has some changes in
17 the biological conditions that Ms. Sanders had
18 proposed in her testimony. I think they're small
19 changes, but I just want to make sure everyone was
20 aware of that exhibit.

21 HEARING OFFICER KRAMER: Okay, so it'll
22 be the identified proposals are now contained in
23 exhibits 302, 303, 305, 312, and perhaps some to
24 be named later.

25 MR. BASOFIN: Can you repeat that?

1 HEARING OFFICER KRAMER: 302, 303, 305,
2 which is the applicant's rebuttal testimony, I
3 believe, and -- I'm sorry, staff's rebuttal
4 testimony -- and then 312 which you probably
5 received a copy of today from Mr. Kessler.

6 MS. BELENKY: Can I ask a clarifying
7 question about the conditions? If we wanted to
8 suggest -- I know at the beginning of the hearing,
9 I believe on Monday, that those were still open
10 for discussion.

11 And so we just did biological -- did we
12 even finish it yesterday -- I think we finished
13 biology yesterday. So, to the extent that we
14 might want to suggest changes to the conditions,
15 is that still open until a certain time? I mean,
16 we've been running late every night, and I'm
17 trying to figure out when I need to do this.

18 HEARING OFFICER KRAMER: Well, I believe
19 the prehearing conference statements were supposed
20 to identify areas in which you were proposing
21 changes. We've received some proposals, you know,
22 as late as today. So I think we need to be
23 somewhat flexible about that requirement.

24 But if you have some proposals, I think
25 you need to reduce them to paper so that you can

1 circulate them when we come in the morning. Even
2 better would be to email them if you finish
3 tonight, just email them around.

4 But understand that something proposed
5 this late will be, you know, -- we're not going to
6 allow time for everyone to go back to their
7 offices and study them for a couple weeks.

8 You could comment about deficiencies in
9 your briefs, as well. But the best time to
10 propose something, to have it get the most
11 thorough hearing, has passed. And the
12 thoroughness of the review will diminish as
13 further time passes.

14 So now rather than later.

15 MS. BELENKY: Thank you.

16 HEARING OFFICER KRAMER: So that's, by
17 my accounting, we've dealt with all the topics --

18 MR. HARRIS: Mr. Kramer, I have
19 documents --

20 HEARING OFFICER KRAMER: -- except
21 alternatives.

22 MR. HARRIS: I have documents to move in
23 for soil and water.

24 HEARING OFFICER KRAMER: Okay, let's go
25 ahead.

1 MR. HARRIS: And I apologize in advance;
2 this is also a long list.

3 HEARING OFFICER KRAMER: Okay, so let me
4 get caught up with this here. Okay.

5 MR. HARRIS: Okay. So it would be
6 exhibit 1, exhibit 2, 57, 4, 5, 7, 8, 17, 19, 20,
7 21, 22, 27, --

8 PRESIDING MEMBER BYRON: Let me pause
9 you for a second. Just to our last panel, thank
10 you very much. Some of our panel we taxed a
11 little more than others. Thank you all for being
12 here.

13 Go ahead, 27 was your last number.

14 HEARING OFFICER KRAMER: So, 20, 21, --

15 MR. HARRIS: Bingo. Yeah, 20, 21, 22,
16 27, 28, 29, 32, 39, 43.

17 HEARING OFFICER KRAMER: Any objection?
18 Seeing none, those are received.

19 Staff?

20 MR. RATLIFF: Mr. Kessler and I have
21 both lost count of what we've moved in and what we
22 haven't, so --

23 HEARING OFFICER KRAMER: Let me know and
24 I'll --

25 MR. RATLIFF: But we wondered if you

1 wanted to move the documents today that had COCs
2 that might still be in question, or do you want to
3 wait until tomorrow, or does it matter?

4 HEARING OFFICER KRAMER: Either way.

5 MR. RATLIFF: Well, then --

6 HEARING OFFICER KRAMER: We'll end up
7 addressing all the others in our check and the
8 cleanup tomorrow, anyway.

9 MR. RATLIFF: Then --

10 HEARING OFFICER KRAMER: 303 is already
11 in for another purpose.

12 MR. RATLIFF: Okay, 302, 305, 312, we'd
13 move those. And you already moved 307. I'm not
14 sure what we've missed in between.

15 HEARING OFFICER KRAMER: Actually I
16 don't have 307 checked. I should have, yeah.

17 MR. RATLIFF: 307 was the FDOC.

18 HEARING OFFICER KRAMER: Right. When
19 you say 305, does that include all the subparts?
20 (a), (b), (c), et cetera? They seem to relate to
21 biology.

22 MR. RATLIFF: I notice you've listed
23 exhibit 314, which was the email from Dr. Pavlik.
24 I don't know if we moved that yesterday, but --
25 are we going to wait to move all the remaining

1 ones at some other time, or --

2 HEARING OFFICER KRAMER: That one's kind
3 of off-topic, so we might as well, for this topic.

4 MR. RATLIFF: Right.

5 MR. HARRIS: I thought we were going to
6 deal with that one as public comment, which would
7 mean we wouldn't move it into evidence.

8 HEARING OFFICER KRAMER: So how about if
9 we say received as public comment instead of into
10 evidence.

11 MR. RATLIFF: Okay, that's fine with us.

12 HEARING OFFICER KRAMER: Okay, any
13 objection to moving all those documents in --
14 receiving them into evidence or public comment, as
15 the case may be?

16 Seeing none, they are received.

17 Okay, so if I have it right, correct me
18 if I'm wrong, tomorrow we have project
19 alternatives to finish.

20 There's a few outstanding issues. I'll
21 just mention them. I'm not intending to provoke a
22 discussion, but just to give you a heads up.

23 That would be the exhibit lists. I'm
24 willing to stick around a little bit this evening
25 to talk about some of the gaps you may have

1 identified.

2 Mr. Connor, especially, since you won't
3 be here tomorrow. It might be useful tonight to
4 take the time.

5 So, exhibit list. Was taken care of,
6 revisiting the project description issues. We'll
7 talk about the briefing schedule again, just to
8 maybe set some specific dates, other than some
9 kind of formula that gets triggered by the actual
10 receipt of the transcripts.

11 We need to talk about how public
12 comments are going to be handled. So, Mr.
13 Kessler, if you could bring along a copy of the
14 notices that staff and BLM sent to the public with
15 the FSA/DEIS. Maybe they will be coordinating
16 that final deadline with those dates. That's my
17 proposal anyway.

18 And one issue I'll just highlight that
19 we haven't talked about that was raised in the
20 past, I haven't heard the theme in these hearings,
21 so maybe it has gone away. But nonetheless, I'll
22 mention it.

23 That was the applicant's concern that
24 both BLM and the CEC compliance officers will be
25 approving most of the compliance deliverables.

1 And if you want to argue that point before us
2 tomorrow would be a good time to do that. Well,
3 you may choose to wait to do it in your briefs,
4 but I'd like to give you the opportunity so we
5 could have a dialogue about that.

6 MR. HARRIS: Yeah, for dialogue. We
7 won't argue it tomorrow, I guess, when we explain
8 what our thoughts are, and what we think might be
9 possible solutions. But we understand the real,
10 the very real nature of the issues, so.

11 HEARING OFFICER KRAMER: Okay. That's
12 what I had on my list of things that we should
13 cover before we close the hearings.

14 And then we'll also talk about issues
15 that the Committee would like to see briefed. And
16 the parties, if they're willing, they can also
17 mention some of the issues they're going to be
18 raising, if they would like. They're not required
19 to, but it might help everybody better prepare
20 their opening briefs if we have some idea of what
21 the people think the issues are on the table.

22 Is there anything else that the parties
23 would suggest I add to that list?

24 MR. BASOFIN: I just have a question,
25 Mr. Kramer, when you say argument tomorrow, are we

1 going to be having closing arguments?

2 HEARING OFFICER KRAMER: We'll offer you
3 the opportunity to make closing statements if
4 you'd like.

5 MR. BASOFIN: Okay.

6 HEARING OFFICER KRAMER: You also have
7 the option of confining all that to your brief.

8 MR. BASOFIN: -- didn't have opening
9 arguments.

10 HEARING OFFICER KRAMER: Are you
11 anticipating that you'll want to make one?

12 MR. BASOFIN: Well, it's good to know
13 that we have the option.

14 HEARING OFFICER KRAMER: Okay. That's
15 fine. Any other issues I should put on my list?

16 MR. HARRIS: It's one of my issues of
17 the documents that we have some concerns about.

18 HEARING OFFICER KRAMER: That's good,
19 yes.

20 MR. HARRIS: Yeah. And, again, I want
21 to pass out the list. And I'm not asking for a
22 ruling today because I think it's way too short
23 notice. And actually one of the parties, the fact
24 that it's not here, so it's completely unfair to
25 the California Native Plant Society.

1 The concerns that Mr. Wheatland and I
2 had kind of looking through people's testimony is
3 that there was essentially no one to testify about
4 the truth of the matter asserted on several things
5 that are offered as exhibits.

6 And I'm really focusing only on things
7 that are given exhibit numbers at this point.
8 That's the primary concern here.

9 You know, one of the hallmarks of the
10 Commission's process has been making people
11 available for cross-examination, to, you know,
12 basically say the document was prepared by them or
13 at their direction, that the facts are true to the
14 best of their knowledge, that the opinions are
15 their own and that they're adopted as their
16 testimony.

17 So, the things that we're concerned
18 about really fall into two categories. And
19 they're third-party things like press releases and
20 newspaper articles. While those are perfectly,
21 you know, valid for maybe public comment things,
22 they shouldn't have the same evidentiary weight as
23 sworn testimony that's given by somebody under
24 oath, subject to cross-examination.

25 The other category is academic journals,

1 citations to papers that have been written, you
2 know, maybe in 1991 or something, that are not
3 cited in the expert's testimony as a source for
4 their expert opinion.

5 So, it's an academic article that is,
6 you know, thrown into the mix, but apparently not
7 relied upon by any of the witnesses.

8 Obviously, if it's a 1981 or '91 article
9 in a scientific journal there's no ability to have
10 someone testify to the truth of the matters
11 asserts, when things have changed over time, and
12 would be available subject to cross-examination.

13 So, those kind of articles that are not
14 relied upon by the experts, we don't mind them
15 having some other status, but giving them status
16 as an exhibit, I think, is not consistent with the
17 Commission's tradition.

18 It really has been more about, you know,
19 admitting hearsay really only for things that are,
20 you know, official notice, or the things that
21 experts have relied upon in their briefs.

22 So, again, I'm not asking for a ruling
23 on this today. I just want to make sure that
24 people are clear about that. And we can talk for
25 however long you want about the things I've just

1 said. Those are the sort of things we'd like you
2 to consider.

3 And we really are worried about the
4 hearing record, which is, you know, a defined term
5 in the Commission's parlance. It's in your
6 regulations, and it's the things you typically
7 rely upon.

8 And it's also, you know, giving
9 something an exhibit number is exactly the kind of
10 thing that will make it become part of the
11 administrative record that would go to a court on
12 appeal.

13 So, again, focusing on the idea of the
14 exhibit as having some sort of special status, as
15 opposed to a public comment. Or something else
16 that's given, you know, without sworn testimony or
17 without somebody's reliance.

18 That is, I think, in a nutshell what I'd
19 like you to consider. Again, I'm not asking you
20 to rule on this today, but I'd like you to
21 consider whether what I've asked for is consistent
22 with the Commission's prior practices, too, so.

23 HEARING OFFICER KRAMER: Okay, and the
24 parties then should be prepared to respond, the
25 parties who have exhibits on this list.

1 MR. HARRIS: Yeah, there --

2 HEARING OFFICER KRAMER: Well,
3 specifically, that the other parties are certainly
4 allowed to --

5 MR. BASOFIN: I think I'm prepared to
6 respond right now.

7 HEARING OFFICER KRAMER: Well, I think
8 it would be better if we just do this in the
9 morning. That will give us a little bit of time
10 to think about the process we want to apply to
11 this.

12 But I will say that Mr. Harris has
13 certainly telegraphed some, perhaps not all, of
14 the potential grounds on which we will be
15 considering his request.

16 MR. HARRIS: And the other thing I guess
17 I would encourage the parties to do, we, in good
18 faith, looked through your testimony for
19 references to these documents. We didn't find
20 them. But, you know, there's a lot of documents
21 to go through. So if there's something that is
22 referred to by one of your witnesses, and relied
23 upon by your witnesses, obviously that would not
24 have been put on the list. But I think we did a
25 pretty thorough scrub.

1 But the other reason I really wanted to
2 give people the night to think about it, was so
3 that they could check their own testimony and say,
4 hey, look, we did cite for this one, if they did,
5 in fact.

6 HEARING OFFICER KRAMER: Okay. Any
7 other points of housekeeping or other issues,
8 procedures, et cetera, that I should try to
9 remember to get through tomorrow?

10 MS. BELENKY: Thank you. Maybe we could
11 just do this quickly. These are also about
12 documents. The staff put in now, as an exhibit,
13 the BLM's biological assessment and all the
14 attachments.

15 And we did discuss this, and I think
16 staff isn't meaning to assert it as their own
17 document, they're just logging it as an exhibit.
18 And so, given what we've just heard, I'm a little
19 confused about what people think the weight of an
20 exhibit is.

21 But, to the extent that there are issues
22 that we've raised prior with some of biological
23 assessment and the attached documents, including
24 the desert tortoise translocation plan, if the
25 staff was presenting it as their document, we

1 would want to cross-examine someone about that.

2 MR. RATLIFF: And Ms. Belenky's right,
3 we put it as an exhibit in the record because we
4 think it's one of those documents that we would
5 want to deliver to a court if the agency were in
6 litigation.

7 And just as we would the FDOC and other
8 fundamental documents on which the decision is
9 based.

10 It's not being sponsored as testimony by
11 the staff, but it is a document that I think any
12 -- that is clearly relevant to the decision about
13 the validity of our decision.

14 So in some ways I think Ms. Belenky
15 points out kind of the uncertainty, the grey area,
16 about what is the difference between an exhibit
17 and a document that just gets docketed. It's not
18 a clear, bright line.

19 But I don't think I've ever been through
20 a siting case that was controverted, and that was
21 controversial that didn't end up having a lot of
22 kind of mixed exhibits in evidence put in by
23 particularly, you know, sometimes late parties
24 who, you know, didn't know what they wanted to
25 file, and filed a lot of stuff that they didn't

1 either create or perhaps even know about. Other
2 than they just saw it and it looked relevant and
3 they filed it.

4 But I think it's kind of an illusory
5 problem. In the end I don't think that the
6 Committee isn't able to distinguish between the
7 things that are important and the things that are
8 extraneous to a decision.

9 And my concern is always that the record
10 be as fully developed with as many tools as the
11 Committee can possibly use to substantiate its
12 decision rather than one that has to figure out
13 what it wants to throw out. That's just sort of
14 where, I think, staff's coming from on this.

15 One of the things that Ms. Belenky has
16 discussed with me, and I think it's a bit of an
17 omission for staff, is we intended to actually
18 file several of the other cornerstone documents
19 that I think should be part of the exhibit list,
20 including the NEMO and documents of that nature.

21 We have apparently, I think, made them
22 part of the record electronically. We don't have
23 them in hard copy. I don't know if that's a
24 problem or not.

25 HEARING OFFICER KRAMER: Are they

1 exhibits at this point, or have they just been
2 emailed around?

3 MS. BELENKY: I believe neither. But
4 they are referred to in the FSA and in other
5 people's testimony. We did discuss this maybe on
6 the first day of hearings when we did visual
7 resources, that same day.

8 And I thought that we had agreed, and I
9 don't remember who, was going to put it in the
10 record on a disk, but I could be wrong about that.

11 This is like the NEMO plan, which is a
12 plan amendment to the California Desert
13 Conservation Act, the California Desert
14 Conservation Act Plan. And then the CDCA plan
15 itself, as well, which is amended by the NEMO; the
16 Desert Tortoise Recovery Plan, which we've also
17 discussed; and the Draft Desert Tortoise Recovery
18 Plan, which we've also discussed.

19 So these are fairly large documents.
20 They're all government documents, federal
21 documents that -- it's a burden for the
22 intervenors to be asked to produce in paper copy
23 all of these very large, some of them are quite
24 large, documents.

25 HEARING OFFICER KRAMER: Okay, well,

1 let's separate the producing paper requirements
2 aspect from what the Committee should consider.

3 MR. HARRIS: I guess I just want to
4 support what Lisa said. I mean we really did try
5 to save a lot of trees here. I think the examples
6 you just cited are the kind of things the
7 Committee can take official notice of.

8 HEARING OFFICER KRAMER: Right, that's
9 what I was about to say --

10 MR. HARRIS: Okay, sorry.

11 HEARING OFFICER KRAMER: But now, the
12 one document on that list that I have a question
13 about is the draft plan. We can certainly take
14 judicial notice of --

15 DR. CONNOR: Well, that is it's official
16 title, it's a public draft version.

17 HEARING OFFICER KRAMER: Right, but it
18 hasn't been adopted --

19 DR. CONNOR: No, it's not the final.

20 HEARING OFFICER KRAMER: It's a little
21 bit less usual, I'll put it that way, to take
22 official notice of documents that are just in
23 draft status. But absent an objection from any of
24 the parties, we're willing to do that.

25 So if somebody can put all those

1 documents on the list, then they don't need to be
2 exhibits because we're simply taking official
3 notice.

4 For everybody's convenience and being
5 able to look at these documents in reasonable
6 preparation of their briefs, and the Committee and
7 the preparation of its decision, it would be nice
8 if somebody created a CD that could be passed
9 around.

10 Or this list maybe has clickable links;
11 that would be great. But at least links to
12 websites where they're available so that we can
13 easily get to them.

14 But as documents we take official notice
15 of, they wouldn't be exhibits and I wouldn't be --
16 you know, my need to have a copy for the official
17 box of exhibits would not apply in that case.

18 So if somebody -- I think it would be
19 useful to have a list put together so we could
20 look at it tomorrow and then we could decide what
21 to do about that. Because what we're telegraphing
22 is that we're certainly open to taking official
23 notice.

24 MR. HARRIS: Yeah. I'm just wondering
25 about timing. I mean I don't know how many people

1 have time between now and tomorrow morning to
2 figure out everything they wanted officially
3 noticed. But we'll try to get our highlights on
4 those, as well.

5 HEARING OFFICER KRAMER: I mean you
6 could make requests down the road in your briefs.
7 But if you're going to do that I would ask that
8 you file that request, you know, much sooner than
9 your briefs will be due, to provide time for all
10 the others so that they can start to use them.

11 And we could rule on those kind of
12 requests, I think, as an intervening step, when we
13 receive them.

14 MR. RATLIFF: Well, I think Ms. Belenky
15 hit the most important documents that we've
16 discussed. I mean we're really talking about
17 foundational documents to the biological
18 discussion, which is about a half a dozen big
19 documents, I think.

20 HEARING OFFICER KRAMER: Well, we'll --
21 this one tomorrow, then.

22 MR. HARRIS: And I think generally
23 anything that's produced by a governmental entity,
24 that's a lot easier to take notice of. I'm more
25 concerned about, you know, private academic

1 papers, and things that are not vetted through a
2 public process like that.

3 I think the draft recovery plan, as long
4 as you say draft recovery plan when you cite it,
5 that's perfectly fine.

6 HEARING OFFICER KRAMER: Yeah, for
7 instance, I think the County of San Bernardino has
8 one or two documents that we could have taken in
9 that way, as well.

10 MR. HARRIS: Yeah, I didn't put those on
11 the list because they're things you could
12 officially notice.

13 HEARING OFFICER KRAMER: Right. But
14 it's also useful that they provided us with
15 electronic copies, because sometimes getting the
16 complete copy of some county's land use laws on
17 their website is a painful experience.

18 (Laughter.)

19 MR. HARRIS: I guess I'd just note,
20 using my screen, with a nonlawyer past completely,
21 over here Mr. Connor had the perfect score. You
22 had our little grading system, so.

23 HEARING OFFICER KRAMER: Okay, so I'm
24 not hearing anything more to add to our to-do list
25 for tomorrow --

1 MR. BASOFIN: Mr. Kramer, I just have a
2 clarification. I think it would help, so we can
3 wrap up our discussion about exhibits tomorrow and
4 get everything moved into the record, if we know
5 for those that fall into the highlighted zone,
6 exactly sort of what our homework is -- what we
7 need to get to you. I know you said --

8 HEARING OFFICER KRAMER: Let's talk
9 about that after we close. There's no reason to
10 take up the Commissioners' time.

11 So, we have noticed, have taken care of
12 the formalities to continue today's hearing until
13 tomorrow morning at 9:00. It'll be here. I think
14 I'm going to try to change, the table's got talk-
15 back on me again. So we're going to move the
16 tables just a little bit so everybody's more
17 square.

18 But if you want to leave your stuff
19 here, you're welcome to do so.

20 MR. HARRIS: Mr. Kramer, just by way of
21 clarification, we've got two things tomorrow.
22 We've got to finish the panel that we ended on
23 last night, and then my panel on alternatives. Is
24 that what's left in terms of evidentiary?

25 HEARING OFFICER KRAMER: Well, you want

1 to just join your witnesses to the panel at this
2 point, your additional witnesses?

3 MR. HARRIS: I think it might be easier
4 just to keep them separate. That would be my
5 preference, too. They've coordinated in that
6 respect, so.

7 HEARING OFFICER KRAMER: Okay, so it
8 would be everybody else, except your witnesses?

9 MS. BELENKY: And Bill Powers said he
10 would call in during that part because there was
11 this back-and-forth between the two experts.

12 HEARING OFFICER KRAMER: So, Mr. Harris,
13 are you suggesting that you want to exclude your
14 witnesses from the main panel?

15 MR. HARRIS: I really just want to be
16 able to do direct with them, so if you want to put
17 them on for their direct testimony, then have the
18 rest of the panel join them, that's fine with me.

19 HEARING OFFICER KRAMER: Okay, so you
20 want to sort of gradually introduce them to the
21 parties?

22 (Laughter.)

23 MR. HARRIS: I think they're very nice
24 people and by the end of the day you're going to
25 want to go to dinner with them.

1 HEARING OFFICER KRAMER: We're hoping
2 that we will be in other places at the end of
3 tomorrow. It seems clear to me that we might even
4 finish by noon if we're working well.

5 MR. HARRIS: Yeah, so I should tell my
6 folks that they will be on first for their direct,
7 so they need --

8 HEARING OFFICER KRAMER: Right.

9 MR. HARRIS: -- to be here right at the
10 start, then.

11 HEARING OFFICER KRAMER: And then we'll
12 do all the housekeeping stuff after that.

13 MR. HARRIS: Thank you.

14 HEARING OFFICER KRAMER: Okay, --

15 MR. RATLIFF: And given the not so
16 successful trial run of the panel group last
17 night, for reasons I'd like to discuss another
18 time, my witness, Ms. Lee, felt like she was
19 thrown for a loop a bit by that format. And would
20 like to have a direct examination tomorrow, if
21 that's okay, which I hope won't run on too much.
22 But following, one witness, ten questions.

23 HEARING OFFICER KRAMER: Okay. That's
24 fine, then. I have to say, we're learning about
25 the panel formatting. It seems to be very much a

1 combination of personalities and topics --

2 ASSOCIATE MEMBER BOYD: And hour of the
3 evening.

4 (Laughter.)

5 HEARING OFFICER KRAMER: It's an art,
6 not a science, if that's fair to say. So, to
7 conclude, formally speaking, this hearing is
8 continued to tomorrow morning at 9:00 a.m. in the
9 same location.

10 If you haven't checked your email,
11 you'll see a copy of the notice that is also
12 posted on the door.

13 And, thank you, and good night.

14 (Whereupon, at 5:25 p.m., the hearing
15 was adjourned, to reconvene at 9:00
16 a.m., Thursday, January 14, 2010, at
17 this same location.)

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